BOWDOIN COLLEGE BULLETIN

CATALOGUE FOR 1971-1972

September 1971

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BRUNSWICK, MAINE

BOWDOIN COLLEGE BULLETIN

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COLLEGE CALENDAR

1971-1972

1971

September 7, *Tuesday*. Rooms ready for occupancy by upperclassmen for the fall semester.

September 8, *Wednesday*. Rooms ready for occupancy by freshmen for the fall semester.

September 10, *Friday*. Placement tests and conferences for freshmen.

September 13, *Monday*. Fall semester of the 170th academic year begins at 8:00 A.M. All students required to be in residence. Registration.

September 14, *Tuesday*. Opening Convocation exercises at 11:30 A.M. in the First Parish Church.

September 15, *Wednesday*. First classes.

October 2, *Saturday*. Alumni Day.

October 13, *Wednesday*. Freshman review.

October 22, *Friday*. James Bowdoin Day.

October 23, *Saturday*. Parents' Day.

October 29, *Friday*. Stated fall meetings of the Governing Boards in Brunswick.

November 8, *Monday*. Midsemester review of classes.

November 24, *Wednesday*. Thanksgiving recess begins at the end of morning classes.

November 29, *Monday*. Thanksgiving recess ends, 8:00 A.M.

November 29, *Monday*. Last day for filing applications for scholarship aid during the spring semester.

December 17, *Friday*. Christmas vacation begins at the end of morning classes.

1972

January 4, *Tuesday*. Christmas vacation ends, 8:00 A.M.

January 4-11, *Tuesday-Tuesday*. Reading period of the fall semester.

January 12-21, *Wednesday-Friday*. Examination period of the fall semester.

January 26, *Wednesday*. Spring semester begins, 8:00 A.M.

January 28, *Friday*. Stated winter meetings of the Governing Boards in Boston.

February 5, *Saturday*. Winter House Party.

March 4, *Saturday*. Campus Chest Weekend.

March 17, *Friday*. Spring vacation begins at the end of morning classes.

March 28, *Tuesday*. Spring vacation ends, 8:00 A.M.

March 28, *Tuesday*. Last day for filing applications for scholarship aid for the academic year 1972-1973.

March 31, *Friday*. Midsemester review of classes.

May 1-12, *Monday-Friday*. Reading period of the spring semester.

May 6, *Saturday*. Ivy Day.

May 8, *Monday*. Last day for filing applications for all graduate scholarships.

May 15-25, *Monday-Thursday*. Examination period of the spring semester.

June 1, *Thursday*. Stated meetings of the Governing Boards in Brunswick.

June 3, *Saturday*. The 167th Commencement Exercises, 10:00 A.M.

September 12, *Tuesday*. Rooms ready for occupancy by upperclassmen for the fall semester.

1972

September 13, *Wednesday*. Rooms ready for occupancy by freshmen for the fall semester.

September 15, *Friday*. Placement tests and conferences for freshmen.

September 18, *Monday*. Fall semester of the 171st academic year begins at 8:00 A.M. All students required to be in residence. Registration.

September 19, *Tuesday*. Opening Convocation exercises at 11:30 A.M. in the First Parish Church.

September 20, *Wednesday*. First classes.

November 22, *Wednesday*. Thanksgiving recess begins at the end of morning classes.

November 27, *Monday*. Thanksgiving recess ends, 8:00 A.M.

December 15, *Friday*. Christmas vacation begins at the end of morning classes.

1973

January 3, *Wednesday*. Christmas vacation ends, 8:00 A.M.

January 3-16, *Wednesday-Tuesday*. Reading period.

January 17-27, *Wednesday-Saturday*. Fall semester examinations.

January 31, *Wednesday*. Spring semester begins.

March 23, *Friday*. Spring vacation begins at the end of morning classes.

April 3, *Tuesday*. Spring vacation ends, 8:00 A.M.

May 12, *Saturday*. Ivy Day.

May 7-18, *Monday-Friday*. Reading period.

May 21-31, *Monday-Thursday*. Spring semester examinations.

June 9, *Saturday*. The 168th Commencement Exercises.

Bowdoin College: A Historical Sketch

BOWDOIN College was established by charter from the General Court of Massachusetts, June 24, 1794, after repeated petitions to the state by citizens who wanted to provide educational opportunity in the District of Maine, then a rapidly growing frontier. Practical establishment of the College was more difficult, however, than the securing of a charter. The lands granted the College by the General Court were not readily convertible into cash. Gifts for its operation were slow in coming—except for one handsome donation by James Bowdoin III, son of the late governor of Massachusetts, whom the College honors in its name. Brunswick was selected as a proper site in 1796, but the erection of a building to house the College was not accomplished until 1802. On September 2 of that year, the Reverend Joseph McKeen was installed as the first president of the College. On the next day the College began its active educational life with eight students and one faculty member, in addition to its president.

The story of Bowdoin in its early years is an index to its entire history. Its first president was a man of religion and of science. Its first benefactor was distinguished as a diplomat, as a statesman, and as a gentleman of broad culture; and the inheritance of his extensive library and his fine collection of art established at the College a lasting conviction of the wisdom of strength in these areas of institutional resources. Its original Board was composed of strongly religious men, individually devoted to the Congregational Church as thoroughly as they were to the democratic ideals of a new nation.

The curriculum during the early years was rigidly prescribed and strong in the classics. In the field of science, mathematics was soon joined by the study of chemistry and mineralogy. Though small in size, the College had some of the greatest teachers it has known, and among the early graduates were several marked for future fame: for instance, Nathan Lord (1809), for thirty-five years president of Dartmouth; Seba Smith (1818), early humorist; Jacob Abbott (1820), prolific author of the "Rollo" books; William Pitt Fessenden (1823), for a short time President Lincoln's secretary of the treasury; Franklin Pierce (1824), fourteenth president of the United States; and Nathaniel Hawthorne and Henry Wadsworth Longfellow, both of the Class of 1825.

The tradition of the College and its pattern of conservatively progressive education were established in its first quarter century. Hardly had Longfellow been graduated from Bowdoin before he went abroad to qualify himself as a pioneer teacher—first at Bowdoin, later at Harvard—of modern languages.

In 1820 the College established a Medical School, which in the 101 years of its existence produced many well-trained doctors who practiced in Maine and, to a lesser extent, elsewhere. In 1921, when the needed clinical facilities and technical equipment had become too complex and expensive for a small institution to supply, it was deemed expedient to discontinue the School.

Bowdoin was established more on faith than endowment, and its finances suffered severely in the aftermath of the panic of 1837. However, its growth was slow and steady. Social fraternities appeared on the campus in the 1840s, followed by organized athletics in the late 1850s. *The Bowdoin Orient,* which claims to be the oldest continuously published college weekly in the country, appeared first in 1871. As the controversy over slavery worked towards a climax, the home of Professor Smyth was a station of the "underground railroad" for escaped slaves; and here, in another professorial household, was written the book that was to arouse the conscience of a nation, *Uncle Tom's Cabin.* During the Civil War the College sent into the service a greater number of men in proportion to its size than any other college in the North.

The twenty years following the Civil War were the most critical in the history of the College. After President Harris's short term of four years (1867-1871), Joshua Lawrence Chamberlain, Maine's most distinguished war hero and governor of the state for four terms following his return to civilian life, was elected president. During these two administrations the curriculum was modernized somewhat, but the establishment of an Engineering School in 1871 was unsuccessful, since it survived for only ten years. Its most famous graduate was Admiral Robert E. Peary (1877), the first to reach the North Pole.

President Chamberlain, for all his great services to college, state, and nation, was unequal to coping with the difficulties now besetting the institution: inadequate endowment and equipment, a decreasing enrollment, dissension among the Faculty and Boards. Probably no one else connected with either group could have succeeded in the circumstances. Chamberlain's resignation in 1883 provided an opportunity to secure from outside the College the vigorous leadership imperatively needed.

The inauguration in 1885, after a two years' interregnum, of the

Reverend William DeWitt Hyde marks the real beginning of another era. He brought to his task of rejuvenating the institution a boundless physical capacity that was matched by his awareness of a modern and changing world and by scholarly ability that made his national reputation an ornament to Bowdoin. He built the College figuratively and literally, introducing new subjects into the curriculum and enlarging the physical facilities on the campus by over a hundred percent. Under him, enrollment increased from 119 in 1885 to 400 in 1915; the endowment in the same period from $378,273 to $2,312,868. He emphasized teaching as the responsibility of the College and learning as the responsibility of the students. His vigor impregnated the whole life and spirit of the College. It was under President Hyde that Bowdoin's philosophy of its students and of its faculty members as responsible, independent individuals became fixed.

Kenneth C. M. Sills succeeded President Hyde after the latter's death in 1917. He was a natural successor (though not a slavish disciple) of President Hyde. He carried forward his predecessor's program, seeing the College successfully through the upheavals concomitant to two wars. Under him, Bowdoin gradually emerged from being a "country college" to a new and increasingly respected status as a country-wide college. Physical facilities were improved and increased. The Faculty grew from thirty-one to eighty-one; enrollment, from 400 to double that figure; and endowment, from $2,473,451 to $12,312,274. Student activities were expanded, and the fraternity system was developed into a cooperative and democratic component of student life.

President Sills was succeeded by James Stacy Coles in the fall of 1952. During his fifteen-year tenure, Bowdoin met the rapidly changing demands of society and students by introducing curricular innovations, expanding the size of its Faculty and improving its facilities at a faster pace than during any comparable period in its history. It was during these years that Bowdoin thoroughly revised its curriculum, extended honors work to all gifted students, introduced independent study courses, initiated an undergraduate research fellowship program, and started its pioneering Senior Year Program. To accomplish these academic improvements, the College expanded the size of its Faculty by over a third, to 109, and raised salaries to a level which has enabled it to continue attracting and retaining outstanding teachers. The value of the College's plant showed a similar dramatic increase. The Arena, Morrell Gymnasium, Senior Center, Coleman Hall, Gibson Hall, and Hawthorne-Longfellow Library were constructed. At the same

time, Pickard Theater was constructed in Memorial Hall; Massachusetts Hall, Hubbard Hall, and three dormitories were renovated; and the Moulton Union and Dudley Coe Infirmary were enlarged.

President Coles resigned at the end of 1967 and a year later, on January 1, 1969, Roger Howell, Jr., a member of Bowdoin's Class of 1958, Rhodes scholar, and chairman of the Department of History, became the tenth president of the College. Only thirty-two at the time of his election, Dr. Howell had already achieved international eminence as a scholar of British history.

Under his leadership, Bowdoin has expanded its curriculum to include Afro-American studies, a major in biochemistry, and courses concerned with our environment. It has developed as elaborate a computer facility as can be found at any undergraduate liberal arts college. It has given its students the opportunity to design courses of study that develop their distinctive interests and talents. It has given students a voice in the governance of the College through representation on more than a dozen faculty committees and through attendance at and participation in the meetings of the Governing Boards. Undoubtedly, the most dramatic change to mark his tenure thus far, however, came in September 1970 when the Governing Boards decided to admit women undergraduates for the first time in 168 years and to expand the enrollment from 950 to 1100 students.

Officers of Government

PRESIDENT OF THE COLLEGE

ROGER HOWELL, JR., D.Phil., LL.D., L.H.D.

TREASURER OF THE COLLEGE

ALDEN HART SAWYER, B.S.

THE PRESIDENT AND TRUSTEES

ROGER HOWELL, JR., D.Phil., LL.D., L.H.D., *President, ex officio.* (Elected 1969.)

SANFORD BURNHAM COUSINS, A.B., *Vice President.* (Elected Overseer, 1950; elected Trustee, 1959.)

JOHN LINCOLN BAXTER, LL.D. (Elected Overseer, 1941; elected Trustee, 1954.)

LEONARD WOLSEY CRONKHITE, JR., M.D. (Elected Overseer, 1969; elected Trustee, 1970.)

WILLIAM PLUMMER DRAKE, A.M. (Elected Overseer, 1955; elected Trustee, 1970.)

LELAND MATTHEW GOODRICH, Ph.D., Sc.D. (Elected Overseer, 1961; elected Trustee, 1966.)

ALFRED SHIRLEY GRAY, A.B., B.B.A. (Elected Overseer, 1954; elected Trustee, 1961.)

FREDERICK POWERS PERKINS, B.S. (Elected Overseer, 1962; elected Trustee, 1965.)

*JOHN COLEMAN PICKARD, LL.D.

WILLIAM CURTIS PIERCE, A.B., LL.B. (Elected Overseer, 1962; elected Trustee, 1967.)

ALDEN HART SAWYER, B.S., *Treasurer, ex officio.* (Elected Overseer, 1954; elected Treasurer, 1967.)

BENJAMIN ROBERT SHUTE, A.B., LL.B. (Elected Overseer, 1953; elected Trustee, 1959.)

*Died September 5, 1970.

Widgery Thomas, A.B. (Elected Overseer, 1948; elected Trustee, 1960.)

Winthrop Brooks Walker, A.B., LL.B. (Elected Overseer, 1966; elected Trustee, 1970.)

Melvin Thomas Copeland, Ph.D., Sc.D., *Trustee Emeritus.* (Elected Overseer, 1934; elected Trustee, 1947.)

William Dunning Ireland, LL.D., *Trustee Emeritus.* (Elected Overseer, 1929; elected Trustee, 1940.)

Earle Spaulding Thompson, LL.D., *Trustee Emeritus.* (Elected Overseer, 1937; elected Trustee, 1947.)

Philip Sawyer Wilder, Ed.M., *Secretary.* (Elected Overseer, 1971.)

THE BOARD OF OVERSEERS

Louis Bernstein, A.B., *President.* (Elected Overseer, 1958.)

Vincent Bogan Welch, A.B., LL.B., *Vice President.* (Elected Overseer, 1962.)

Charles William Allen, J.D. (Elected Overseer, 1967.)

Willard Bailey Arnold III, M.S. (Elected Overseer, 1970.)

Charles Manson Barbour, M.D., C.M. (Elected Overseer, 1960.)

Robert Ness Bass, M.B.A. (Elected Overseer, 1964.)

Gerald Walter Blakeley, Jr., A.B. (Elected Overseer, 1960.)

Matthew Davidson Branche, M.D. (Elected Overseer, 1970.)

William Smith Burton, B.S., LL.B. (Elected Overseer, 1971.)

William Hodding Carter, Jr., Litt.D., L.H.D., LL.D. (Elected Overseer, 1961.)

David Watson Daly Dickson, Ph.D. (Elected Overseer, 1966.)

Reverend Richard Hill Downes, A.B., S.T.B. (Elected Overseer, 1970.)

Gilbert Molleson Elliott, Jr., B.S. (Elected Overseer, 1957.)

Frank Caradoc Evans, A.M. (Elected Overseer, 1953.)

James Mark Fawcett III, A.B. (Elected Overseer, 1969.)

Joseph Lyman Fisher, Sc.D. (Elected Overseer, 1970.)

Roy Anderson Foulke, LL.D. (Elected Overseer, 1948.)

Nathan Ira Greene, A.B. (Elected Overseer, 1964.)

William Henry Gulliver, Jr., A.B., LL.B. (Elected Overseer, 1965.)

Honorable Robert Hale, LL.D. (Elected Overseer, 1931.)

Peter Francis Hayes, A.B. (Elected Overseer, 1969.)

Merton Goodell Henry, A.B., LL.B. (Elected Overseer, 1962.)

Honorable Horace Augustine Hildreth, Ed.D., D.C.L., LL.D. (Elected Overseer, 1953.)

Roger Howell, Jr., D.Phil., LL.D., L.H.D., *President of the College, ex officio.*

John Roscoe Hupper, A.B., LL.B. (Elected Overseer, 1970.)

Roscoe Cunningham Ingalls, Jr., B.S. (Elected Overseer, 1968.)

Charles Thomas Ireland, Jr., J.D. (Elected Overseer, 1961.)

William Dunning Ireland, Jr., A.B. (Elected Overseer, 1971.)

George Basil Knox, LL.D. (Elected Overseer, 1961.)

Lewis Wertheimer Kresch, M.B.A. (Elected Overseer, 1970.)

Austin Harbutt MacCormick, Sc.D., LL.D. (Elected Overseer, 1933.)

William Butler Mills, A.M. (Elected Overseer, 1965.)

Robert Warren Morse, Ph.D., Sc.D. (Elected Overseer, 1971.)

William Howard Niblock, L.H.D. (Elected Overseer, 1958.)

Ralph Trafton Ogden, M.D. (Elected Overseer, 1963.)

Arthur Knowlton Orne, A.B. (Elected Overseer, 1965.)

Jotham Donnell Pierce, A.B., LL.B. (Elected Overseer, 1963.)

Everett Parker Pope, A.M. (Elected Overseer, 1961.)

Ezra Pike Rounds, A.B. (Elected Overseer, 1952.)

Paul Sibley, B.S. (Elected Overseer, 1960.)

Lieutenant General Robert Nelson Smith, LL.D., U.S.A.F. (Elected Overseer, 1965.)

Marshall Swan, J.D. (Elected Overseer, 1965.)

Honorable Donald Wedgwood Webber, L.H.D., LL.D. (Elected Overseer, 1962.)

Philip Sawyer Wilder, Ed.M., *Secretary of the President and Trustees, ex officio.*

Richard Arthur Wiley, LL.M. (Elected Overseer, 1966.)

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*Chester Granville Abbott, LL.D., *Overseer Emeritus.*

Neal Woodside Allen, A.M., *Overseer Emeritus.* (Elected Overseer, 1941.)

Very Reverend Chester Burge Emerson, D.D., *Overseer Emeritus.* (Elected Overseer, 1924.)

†William Haskell Farrar, A.B., *Overseer Emeritus.*

Edward Humphrey, B.S., *Overseer Emeritus.* (Elected Overseer, 1956.)

Reverend Joseph Cony MacDonald, D.D., *Overseer Emeritus.* (Elected Overseer, 1950.)

Paul Kendall Niven, A.M., *Overseer Emeritus.* (Elected Overseer, 1942.)

Karl Russell Philbrick, M.B.A., *Overseer Emeritus.* (Elected Overseer, 1964.)

Sumner Tucker Pike, Sc.D., LL.D., *Overseer Emeritus.* (Elected Overseer, 1939.)

Fred Lysander Putnam, A.M., *Overseer Emeritus.* (Elected Overseer, 1942.)

Allan Woodcock, M.D., Sc.D., *Overseer Emeritus.* (Elected Overseer, 1942.)

Thomas Prince Riley, A.B., *Secretary.* (Elected Secretary, 1955.)

*Died June 24, 1971.
†Died August 26, 1970.

COMMITTEES OF THE BOARDS

Joint Standing Committees

Executive: The President, Vice President of the Trustees, Mr. Baxter, the President of the Board of Overseers, and Messrs. Allen and Hildreth.

Policy: Messrs. Cronkhite, Cousins, Drake, Dickson, Fisher, Henry, C. T. Ireland, J. D. Pierce, and Welch; two teaching faculty members, and two undergraduates.

Finance: Messrs. Walker, Perkins, W. C. Pierce, Blakeley, Fawcett, Greene, and Pope.

Educational Program: Messrs. Goodrich, W. C. Pierce, Shute, Dickson, Hayes, Niblock, Rounds, Webber, and Wiley; two teaching faculty members, and two undergraduates.

Development: Messrs. Drake, Cousins, Perkins, Fawcett, Hupper, Ingalls, Knox, Mills, and Welch; one teaching faculty member, and one undergraduate.

Honors: The President of the Board of Overseers, ex officio; Messrs. Goodrich, Gray, W. C. Pierce, Burton, Fisher, and MacCormick; one teaching faculty member, and one undergraduate.

Grounds and Buildings: Messrs. Sawyer, Thomas, Allen, Bass, Downes, Elliott, Evans, and Sibley; two teaching faculty members, and two undergraduates.

Athletics: Messrs. Gray, Shute, Barbour, Branche, Elliott, and Greene; two teaching faculty members, and two undergraduates.

Arts: Messrs. W. C. Pierce, Shute, Thomas, Hale, Hupper, W. D. Ireland, Jr., Kresch, Ogden, Orne, and Wiley; two teaching faculty members, and two undergraduates.

Library: Messrs. Baxter, Goodrich, Arnold, Gulliver, Morse, and Swan; one teaching faculty member, and one undergraduate.

Special Committees

Advisory Committee on Educational Television: Messrs. Cousins, Henry, and Hildreth.

Planning of Buildings: The President; Messrs. Drake, Shute, Thomas, Arnold, Blakeley, Greene, and Sibley; and Professors Beam and Shipman.

Student Environment: Messrs. W. C. Pierce, Cousins, Shute, Dickson, Fisher, Hayes, Niblock, and Rounds; the Dean of Students, Mr. Cowing and Professor Dane; and two undergraduates.

Architect for Art Building: Messrs. Wiley, Baxter, Walker, Blakeley, Fawcett, and Knox; Professors Beam, Cornell, and Stoddard, and Mr. West.

Membership and Operation of the Governing Boards: Messrs. Allen, Cousins, Drake, Bernstein, and Wiley; Albert E. Gibbons, Jr. '58 and two members of the Alumni Council; the President, the Dean of the Faculty, Professors Ambrose, Geary, Long, McGee, and Rossides; and three undergraduates.

Computing Center: Messrs. Wiley, Sawyer, and Kresch; Professor Hughes; and Thomas R. Friedlander '72.

Nominating Committee of the Overseers: Messrs. Evans, Allen, and Bass.

FACULTY REPRESENTATIVES

Trustees: Professors Geary and McGee.

Overseers: Professors Ambrose, Long, and Rossides.

STUDENT REPRESENTATIVES

Trustees: Michael W. Bushey '72, ex officio, and James E. Lyons '74.

Overseers: C. Mitchell Goldman '72, ex officio, Douglas C. Lyons '73, and Johan C.-R. Segerdahl '74.

Officers of Instruction

ROGER HOWELL, JR., A.B. *(Bowdoin)*, B.A., M.A., D.Phil. *(Oxford)*, LL.D. *(Nasson, Colby)*, L.H.D. *(Maine)*, *President of the College.* (1964*)

KENNETH JAMES BOYER, A.B. *(Rochester)*, B.L.S *(New York State Library School)*, *College Editor Emeritus.* (1927)

PHILIP MEADER BROWN, A.B. *(Brown)*, A.M. *(Stanford)*, Ph.D. *(Harvard)*, *Professor of Economics Emeritus.* (1934)

†MANTON COPELAND, B.S., M.S., Ph.D. *(Harvard)*, *Professor of Biology Emeritus and Josiah Little Professor of Natural Science Emeritus.*

EDWARD SANFORD HAMMOND, A.B., A.M. *(Yale)*, Ph.D. *(Princeton)*, *Wing Professor of Mathematics Emeritus.* (1921)

CECIL THOMAS HOLMES, A.B. *(Bates)*, A.M., Ph.D. *(Harvard)*, *Wing Professor of Mathematics Emeritus.* (1925)

ORREN CHALMER HORMELL, A.B. *(Indiana)*, A.M. *(Indiana, Harvard)*, Ph.D. *(Harvard)*, D.C.L. *(Bowdoin)*, *DeAlva Stanwood Alexander Professor of Government Emeritus and Director of the Bureau for Research in Municipal Government Emeritus.* (1911)

SAMUEL EDWARD KAMERLING, B.S., M.S. *(New York University)*, Ph.D. *(Princeton)*, *Charles Weston Pickard Professor of Chemistry Emeritus.* (1934)

EDWARD CHASE KIRKLAND, A.B. *(Dartmouth)*, A.M., Ph.D. *(Harvard)*, M.A. *(Cambridge)*, Litt.D. *(Dartmouth, Princeton, Bowdoin)*, *Frank Munsey Professor of History Emeritus.* (1930)

FRITZ CARL AUGUST KOELLN, Ph.D. *(Hamburg)*, *George Taylor Files Professor of Modern Languages Emeritus.* (1929)

DONOVAN DEAN LANCASTER, A.B. *(Bowdoin)*, *Director of the Moulton Union and the Centralized Dining Service Emeritus.* (1927)

EATON LEITH, A.B. *(Dartmouth)*, A.M. *(Harvard)*, *Professor of Romance Languages Emeritus.* (1936)

*Date of first appointment to the faculty.

†Died May 22, 1971.

Noel Charlton Little, A.B. *(Bowdoin)*, A.M., Ph.D. *(Harvard)*, Sc.D. *(Bowdoin), Professor of Physics Emeritus and Josiah Little Professor of Natural Science Emeritus.* (1919)

Edith Ellen Lyon, *Assistant, College Editor, Emerita.* (1922)

Daniel Knowles MacFayden, *Coach of Baseball Emeritus.* (1946)

Glenn Ronello McIntire, A.B., A.M. *(Bowdoin), Assistant Treasurer Emeritus.* (1932)

George Hunnewell Quinby, A.B. *(Bowdoin)*, M.F.A. *(Yale), Professor of English Emeritus.* (1934)

Albert Rudolph Thayer, A.B. *(Bowdoin)*, A.M. *(Emerson), Harrison King McCann Professor of Oral Communication in the Department of English Emeritus.* (1924)

Thomas Curtis Van Cleve, A.B., A.M. *(Missouri)*, Ph.D. *(Wisconsin)*, Litt. D. *(Bowdoin), Thomas Brackett Reed Professor of History and Political Science Emeritus.* (1915)

Philip Sawyer Wilder, B.S. *(Bowdoin)*, Ed.M. *(Harvard), Assistant to the President Emeritus.* (1927)

Albert Abrahamson, A.B. *(Bowdoin)*, A.M. *(Columbia)*, Sc.D. *(Bowdoin), George Lincoln Skolfield, Jr., Professor of Economics.* (On leave of absence in the spring semester.) (1928)

John William Ambrose, Jr., A.B., A.M., Ph.D. *(Brown), Associate Professor of Classics.* (1966)

George Robert Anderson, A.B. *(Augustana)*, Ph.D. *(Iowa), Assistant Professor of Chemistry.* (1970)

Philip Conway Beam, A.B., A.M., Ph.D. *(Harvard), Henry Johnson Professor of Art and Archaeology and Curator of the Winslow Homer Collection.* (1936)

Robert Kingdon Beckwith, B.S. *(Lehigh)*, M.S. *(Juilliard), Professor of Music.* (1953)

William Harold Bennett, A.B. *(Denver)*, A.M. *(Arizona State), Instructor in Speech.* (1970)

James Edward Bland, A.B., Ph.D. *(Harvard), Assistant Professor of History.* (1969)

Thomas Lynch Bohan, B.S. *(Chicago)*, M.S., Ph.D. *(Illinois), Assistant Professor of Physics.* (1969)

Gabriel John Brogyanyi, A.B. *(Columbia),* A.M., Ph.D. *(Cornell), Assistant Professor of Romance Languages.* (1968)

Robin Bruce Stirling Brooks, A.B. *(Columbia),* A.M. *(Yale),* Ph.D. *(University of California,* Los Angeles), *Assistant Professor of Mathematics.* (1967)

Herbert Ross Brown, B.S. *(Lafayette),* A.M. *(Harvard),* Ph.D. *(Columbia);* Litt. D. *(Lafayette, Bowdoin),* L.H.D. *(Bucknell),* LL.D. *(Maine), Professor of English and Edward Little Professor of Rhetoric and Oratory.* (1925)

Marion Brown, Jr., *Assistant Professor of Music.* (1971)

Franklin Gorham Burroughs, Jr., A.B. *(University of the South),* A.M., Ph.D. *(Harvard), Assistant Professor of English.* (1968)

Samuel Shipp Butcher, A.B. *(Albion),* A.M., Ph.D. *(Harvard), Associate Professor of Chemistry.* (1964)

Donald Graham Caldwell, A.B. *(University of California,* Los Angeles), A.M. *(Occidental), Assistant Professor of Music.* (1970)

Claude Marie-Joseph Carrière, A.B. *(Wisconsin),* A.M. *(Brown), Assistant Professor of Romance Languages.* (1968)

Steven Roy Cerf, A.B. *(Queens, CUNY), Instructor in German.* (1971)

Michael Karl Chapko, B.S. *(Carnegie Institute of Technology),* A.M. *(Hunter), Instructor in Psychology.* (1970)

Richard Leigh Chittim, A.B. *(Bowdoin),* B.A., M.A. *(Oxford), Professor of Mathematics.* (1942)

Dan Edwin Christie, A.B. *(Bowdoin),* A.M., Ph.D. *(Princeton), Wing Professor of Mathematics.* (1942)

Thomas Browne Cornell, A.B. *(Amherst), Associate Professor of Art.* (1962)

Herbert Randolph Coursen, Jr., A.B. *(Amherst),* A.M. *(Wesleyan),* Ph.D. *(Connecticut), Associate Professor of English.* (1964)

Louis Osborne Coxe, A.B. *(Princeton), Pierce Professor of English.* (On leave of absence.) (1955)

Myron Whipple Curtis, A.B. *(Bowdoin),* A.M. *(University of California,* Los Angeles), *Director of the Computing Center and Lecturer in Mathematics.* (1965)

ATHERN PARK DAGGETT, A.B. *(Bowdoin)*, A.M., Ph.D. *(Harvard)*, LL.D. *(Bowdoin), William Nelson Cromwell Professor of Constitutional and International Law and Government.* (1930)

NATHAN DANE II, A.B. *(Bowdoin)*, A.M., Ph.D. *(Illinois), Winkley Professor of the Latin Language and Literature.* (1946)

PAUL GIFFORD DARLING, A.B. *(Yale)*, A.M. *(New York University)*, Ph.D. *(Columbia), Professor of Economics.* (1956)

CRAIG DIETRICH, A.B. *(Chicago), Assistant Professor of History.* (1968)

JOHN CHAUNCEY DONOVAN, A.B. *(Bates)*, A.M., Ph.D. *(Harvard), DeAlva Stanwood Alexander Professor of Government.* (1965)

KIRK RETIG EMMERT, A.B. *(Williams)*, A.M. *(Chicago), Assistant Professor of Government.* (1967)

ALBERT MYRICK FREEMAN III, A.B. *(Cornell)*, A.M., Ph.D. *(University of Washington), Associate Professor of Economics.* (1965)

ALFRED HERMAN FUCHS, A.B. *(Rutgers)*, A.M. *(Ohio)*, Ph.D. *(Ohio State), Associate Professor of Psychology.* (1962)

EDWARD JOSEPH GEARY, A.B. *(Maine)*, A.M., Ph.D. *(Columbia)*, hon. M.A. *(Harvard), Longfellow Professor of Romance Languages.* (On leave of absence in the fall semester.) (1965)

WILLIAM DAVIDSON GEOGHEGAN, A.B. *(Yale)*, B.D. *(Drew)*, Ph.D. *(Columbia), Professor of Religion.* (On leave of absence in the spring semester.) (1954)

ARTHUR LEROY GREASON, JR., A.B. *(Wesleyan)*, A.M., Ph.D. *(Harvard), Dean of the College and Professor of English.* (1952)

CHARLES ALFRED GROBE, JR., B.S., M.S., Ph.D. *(Michigan), Associate Professor of Mathematics.* (On leave of absence in the spring semester.) (1964)

ELIZABETH MENDELL GROBE, A.B. *(Bryn Mawr)*, A.M., Ph.D., *(Michigan), Lecturer in Mathematics.* (Fall 1971.) (1968)

ALTON HERMAN GUSTAFSON, B.S. *(Massachusetts)*, A.M., Ph.D. *(Harvard), Professor of Biology.* (1946)

LAWRENCE SARGENT HALL, A.B. *(Bowdoin)*, A.M., Ph.D. *(Yale). Henry Leland Chapman Professor of English Literature.* (1946)

EDWARD HERBERT HANIS, A.B. *(Cornell)*, Ph.D. *(Indiana), Assistant Professor of Economics.* (1966)

Paul Vernon Hazelton, B.S. *(Bowdoin),* Ed.M. *(Harvard), Professor of Education.* (1948)

Ernst Christian Helmreich, A.B. *(Illinois),* A.M., Ph.D. *(Harvard), Thomas Brackett Reed Professor of History and Political Science.* (1931)

James Lee Hodge, A.B. *(Tufts),* A.M., Ph.D. *(Pennsylvania State), Associate Professor of German.* (1961)

Wolcott Anders Hokanson, Jr., A.B. *(Bowdoin),* M.B.A. *(Harvard), Lecturer in Economics* (Spring 1972) *and Vice President for Administration and Finance.* (1967)

Lou Emma Holloway, A.B. *(Tougaloo),* A.M. *(Denver), Visiting Associate Professor of History on the Tallman Foundation* (Fall 1971).

Thomas Duvall Hopkins, A.B. *(Oberlin),* A.M., M.Phil., Ph.D. *(Yale), Assistant Professor of Economics.* (1968)

John LaFollette Howland, A.B. *(Bowdoin),* Ph.D. *(Harvard), Professor of Biology.* (1963)

William Taylor Hughes, B.S., A.M. *(Indiana),* Ph.D. *(Northwestern), Associate Professor of Physics and Astronomy.* (1966)

Charles Ellsworth Huntington, A.B., Ph.D. *(Yale), Professor of Biology.* (1953)

Arthur Mekeel Hussey II, B.S. *(Pennsylvania State),* Ph.D. *(Illinois), Associate Professor of Geology.* (1961)

Ivan Julian Hyams, B.Sc. *(Sir John Cass College,* London), Ph.D. *(Royal Holloway College,* Surrey), *Assistant Professor of Chemistry.* (On leave of absence.) (1967)

Almon Abbott Ikeler, A.B. *(Harvard),* A.M. *(Pittsburgh),* Ph.D. *(London), Assistant Professor of English.* (1969)

Myron Alton Jeppesen, B.S. *(Idaho),* M.S., Ph.D. *(Pennsylvania State), Professor of Physics and Josiah Little Professor of Natural Science.* (On leave of absence in the spring semester.) (1936)

Robert Wells Johnson, A.B. *(Amherst),* M.S., Ph.D. *(Massachusetts Institute of Technology), Associate Professor of Mathematics.* (1964)

John Michael Karl, A.B., A.M. *(Harvard), Assistant Professor of History.* (1968)

Robert Earle Knowlton, A.B. *(Bowdoin),* Ph.D. *(North Carolina), Assistant Professor of Biology.* (1965)

Elroy Osborne LaCasce, Jr., A.B. *(Bowdoin),* A.M. *(Harvard),* Ph.D. *(Brown), Professor of Physics.* (1947)

Daniel Levine, A.B. *(Antioch),* A.M., Ph.D. *(Northwestern), Associate Professor of History.* (1963)

Barry Lee Lively, B.S. *(Pennsylvania State),* A.M. *(Kent State),* Ph.D. *(Michigan), Assistant Professor of Psychology.* (1967)

Burke O'Connor Long, A.B. *(Randolph-Macon),* B.D., A.M., Ph.D. *(Yale), Assistant Professor of Religion.* (1968)

James Paul McDermott, A.B. *(Wesleyan),* B.D. *(Yale),* A.M., Ph.D. *(Princeton), Assistant Professor of Religion.* (1970)

Charles Douglas McGee, B.S., A.M. *(Northwestern),* Ph.D. *(Harvard), Professor of Philosophy.* (1963)

John McKee, A.B. *(Dartmouth),* A.M. *(Princeton), Lecturer in Art.* (1969)

John Buell Mathis, B.S. *(Yale),* Ph.D. *(Massachusetts Institute of Technology), Assistant Professor of Chemistry.* (1969)

Dana Walker Mayo, B.S. *(Massachusetts Institute of Technology),* Ph.D. *(Indiana), Charles Weston Pickard Professor of Chemistry.* (1962)

Edward Boyd Minister, A.B. *(Ohio),* A.M., Ed.D. *(Columbia), Assistant Professor of Sociology.* (On leave of absence.) (1967)

Richard Ernest Morgan, A.B. *(Bowdoin),* A.M., Ph.D. *(Columbia), Associate Professor of Government.* (1969)

James Malcolm Moulton, B.S. *(Massachusetts),* A.M., Ph.D. *(Harvard), Professor of Biology.* (1952)

Robert Raymond Nunn, A.B. *(Rutgers),* A.M. *(Middlebury),* Ph.D. *(Columbia), Associate Professor of Romance Languages.* (1959)

Paul Luther Nyhus, A.B. *(Augsburg),* S.T.B., Ph.D. *(Harvard), Dean of Students and Assistant Professor of History.* (1966)

Duane Alan Paluska, A.B. *(Knox),* A.M. *(Middlebury),* Ph.D. *(Brandeis), Assistant Professor of English.* (1968)

Lawrence Charles Perlmuter, A.B. *(Boston University)*, A.M., Ph.D. *(Syracuse), Assistant Professor of Psychology.* (1966)

Edward Pols, A.B., A.M., Ph.D. *(Harvard), Professor of Philosophy.* (1949)

Christian Peter Potholm II, A.B. *(Bowdoin)*, A.M., M.A.L.D., Ph.D. *(Tufts), Associate Professor of Government.* (1970)

James Daniel Redwine, Jr., A.B. *(Duke)*, A.M. *(Columbia)*, Ph.D. *(Princeton), Associate Professor of English.* (1963)

John Cornelius Rensenbrink, A.B. *(Calvin)*, A.M. *(Michigan)*, Ph.D. *(Chicago), Associate Professor of Government.* (1961)

James Richmond, A.M., B.D., Ph.D. *(Glasgow), Visiting Professor of Religion on the Tallman Foundation* (Spring 1972).

Thomas Auraldo Riley, A.B. *(Bowdoin)*, A.M. *(Yale)*, Ph.D. *(Harvard), Professor of German.* (1939)

Olin Clyde Robison, A.B. *(Baylor)*, D.Phil. *(Oxford), Dean of the Faculty and Senior Lecturer in Government and Legal Studies.* (1970)

Daniel Walter Rossides, A.B., Ph.D. *(Columbia), Associate Professor of Sociology.* (1968)

Burton Rubin, A.B. *(New York University)*, A.M. *(Columbia), Assistant Professor of Russian.* (1965)

Abram Raymond Rutan, A.B. *(Bowdoin)*, M.F.A. *(Yale), Director of Theater in the Department of English.* (1955)

Elliott Shelling Schwartz, A.B., A.M., Ed.D. *(Columbia), Associate Professor of Music.* (On leave of absence.) (1964)

Carl Thomas Settlemire, B.S., M.S. *(Ohio State)*, Ph.D. *(North Carolina), Assistant Professor of Biology and Chemistry.* (1969)

Katherine Sarah Sherman, A.B. *(Bryn Mawr)*, A.M. *(Toronto), Assistant Professor of Philosophy.* (1969)

William Davis Shipman, A.B. *(University of Washington)*, A.M. (*University of California,* Berkeley), Ph.D. (*Columbia*), *Adams-Catlin Professor of Economics.* (1957)

Robert James Small, A.B., M.B.A. *(Denver), Assistant Professor of Government.* (1970)

Brooks Whitney Stoddard, A.B. *(Williams)*, A.M., Ph.D. *(New York University), Assistant Professor of Art.* (1964)

Burton Wakeman Taylor, B.S. *(Yale)*, Ph.D. *(Columbia), Professor of Sociology.* (1940)

George Blaise Terrien, A.B., B.Arch. *(Columbia), Lecturer in Art* (Spring 1972). (1970)

Clifford Ray Thompson, Jr., A.B., A.M., Ph.D. *(Harvard), Associate Professor of Romance Languages.* (On leave of absence.) (1961)

James Henry Turner, A.B. *(Bowdoin)*, B.S., M.S., Ph.D. *(Massachusetts Institute of Technology), Associate Professor of Physics.* (1964)

John Harold Turner, M.A. (*St. Andrews,* Scotland), A.M. *(Indiana), Instructor in Romance Languages.* (1971)

David Jeremiah Vail, A.B. *(Princeton)*, A.M., M.Phil., Ph.D. *(Yale), Assistant Professor of Economics.* (1970)

James Edward Ward III, A.B. *(Vanderbilt)*, A.M., Ph.D. *(Virginia), Assistant Professor of Mathematics and Director of the Senior Center.* (1968)

David Alan Wheatland, B.S. *(Brown)*, Ph.D. *(Maryland), Assistant Professor of Chemistry.* (1967)

William Bolling Whiteside, A.B. *(Amherst)*, A.M., Ph.D. *(Harvard), Frank Munsey Professor of History.* (On leave of absence.) (1953)

Robert Irving Willman, A.B., Ph.D. *(Harvard), Assistant Professor of History.* (1969)

Charles Goddard Wing, A.B. *(Bowdoin)*, Ph.D. *(Massachusetts Institute of Technology), Lecturer and Research Associate in Physics.* (1971)

Wendy Phillips Wolfson, A.B. *(Boston University)*, M.A. *(Pennsylvania), Instructor in Sociology.* (1971)

Ray Stuart Bicknell, B.S., M.S. *(Springfield), Coach of Basketball.* (1962)

Charles Joseph Butt, B.S., M.S. *(Springfield), Coach of Soccer and Swimming.* (1961)

Edmund Lawrence Coombs, B.S. *(Bowdoin), Coach of Baseball and Freshman Basketball.* (1947)

Mortimer Ferris LaPointe, B.S. *(Trinity),* M.A.L.S. *(Wesleyan), Coach of Lacrosse.* (1969)

James Spencer Lentz, A.B. *(Gettysburg),* A.M. *(Columbia), Coach of Football and Freshman Lacrosse.* (1968)

Mike Linkovich, A.B. *(Davis and Elkins), Assistant Coach and Trainer in the Department of Physical Education.* (1954)

Edward Thomas Reid, *Coach of Squash and Tennis.* (1969)

Frank Fabean Sabasteanski, A.B. *(Bowdoin),* Ed.M. *(Boston University), Coach of Track and Cross-Country.* (1946)

Philip Hilton Soule, A.B. *(Maine), Coach of Wrestling.* (1967)

Sidney John Watson, B.S. *(Northeastern), Coach of Hockey and Golf.* (1958)

Adjunct Faculty

Robert Greenhalge Albion, A.B. *(Bowdoin),* A.M., Ph.D. *(Harvard),* Litt.D. *(Bowdoin), Visiting Lecturer in Maritime History* (Fall 1971).

John Patrick Davis, A.B. *(Holy Cross),* M.A. *(Harvard), Visiting Lecturer in Indian Affairs* (Fall 1971).

George Howard Glover, Jr., A.B. *(Yale),* M.A., LL.B. *(Michigan), Visiting Lecturer in Legal Affairs* (Spring 1972).

Robert Franc Ritchie, M.D. *(Rochester), Research Associate in Biology.*

LeRoy Young, B.S. *(Minnesota), Visiting Lecturer in Economics and Afro-American Studies.*

Teaching Fellows

Marcelle Garnier, *Teaching Fellow in French.*

Helmut Stiefenhöfer, *Teaching Fellow in German.*

Roberto Augusto Vargas, *Teaching Fellow in Spanish.*

Mary-Agnes Wine, A.B., A.M. *(Mount Holyoke), Teaching Fellow in Biology.*

COMMITTEES OF THE FACULTY

Standing

Administrative: The President, *Chairman;* the Dean of the College, the Dean of Students, the College Physician (all ex officio); Messrs. Brooks, Carrière, Dane, Gustafson, Small.

Admissions and Student Aid: Mr. Ward, *Chairman* (fall); Mr. Geary, *Chairman* (spring); the Dean of the College, the Dean of Students, the Director of Admissions (ex officio), the Director of Student Aid (ex officio), the Assistant Dean of Students (ex officio); Messrs. Bohan, Burroughs, Emmert, Stuckey; Gerald B. Bushey '72, Ian E. James '74, Johan C.-R. Segerdahl '74.

Advanced Study: Mr. Mayo, *Chairman;* the Dean of the College (ex officio); Messrs. Christie, Hughes, Potholm, Redwine; Richard G. Malconian '74, Michael G. Morgan '74, Michael K. H. Riedner '74.

Afro-American Studies: Chairman to be elected; the Dean of Students; Messrs. M. Brown, Freeman, Johnson, Levine, Small; Miss Holloway; Richard M. Adams, Jr. '73, Ronald P. Hale '73, Gerald W. Lewis '73, James L. Lyons '73.

Athletics: The Dean of the College, *Chairman;* the Director of Athletics; Messrs. Caldwell, Chittim, Curtis, Howland, McGee; Thomas J. Costin '73, Blair C. Fensterstock '72, John W. Georgitis '72.

Budgetary Priorities: Mr. Morgan, *Chairman;* Messrs. Bland, Butcher, Redwine, Settlemire; Mrs. Sherman; Paul W. King '73, James E. McHugh, Jr. '73, Edward G. Simeone, Jr. '74.

Computing Center: Mr. Hughes, *Chairman;* the Vice President for Administration and Finance (ex officio); Mr. Curtis, *Secretary;* Messrs. G. R. Anderson, Brooks, Morgan; Thomas R. Friedlander '72, Raymond P. Johnson '73, Michael G. Morgan '74.

Curriculum and Educational Policy: The President, *Chairman;* the Dean of the College, the Dean of the Faculty, the Director of the Senior Center; Messrs. Burroughs, Hughes, Long, Mathis, Morgan, Shipman; Frederick J. Honold, Jr. '74, Barry Mills '72, Kenneth V. Santagata '73.

Faculty Research: The President, *Chairman;* the Dean of the Faculty (ex officio); Messrs. Helmreich, Hopkins (Undergradu-

ate Research Fellowships), J. M. Moulton (Research Fund), Pols (Ford Humanities Grant), Stoddard (Instructional Aids).

Graduate Scholarships: The Dean of the College, *Chairman;* the Director of Student Aid, *Secretary;* Messrs. Dane, Darling, Hall, LaCasce, Settlemire.

Lectures and Concerts: Mr. Bland, *Chairman;* the Assistant to the Director of the Senior Center; Messrs. Beam, Beckwith, Carrière, Paluska; Arthur R. Baker, Jr. '74, Jim H. Harding '74, Eric M. Weis '73.

Library: Mr. Pols, *Chairman;* the Librarian (ex officio); Messrs. H. R. Brown, Darling, Hodge, Karl; Jeffrey J. Gill '73, James L. Polianites, Jr. '74, Donald W. Westfall '72.

Military Affairs: Mr. Ambrose, *Chairman;* the Dean of the College, the Director of the ROTC Program; Messrs. Bohan, Brogyanyi, Taylor; Mark E. Detering '72, John J. Jacobson '73, D. Michael Shook '73.

Recording: The Dean of the College, *Chairman;* the Dean of Students, the Director of the Computing Center; Messrs. Daggett, Hussey, J. M. Moulton, Vail.

Senior Center Council: Mr. Hodge, *Chairman;* the Director of the Senior Center, the Dean of the Faculty, the Assistant to the Director of the Senior Center (ex officio); Messrs. Chittim, McDermott, Settlemire; John H. Parsons '72 (fall), Thomas G. Wourgiotis '72 (fall), and two seniors to be elected in the fall.

Student Activities Fee: Mr. Monke, *Chairman;* Mr. H. K. Warren, *Secretary;* Messrs. Burroughs, Treadwell, Wheatland; Michael W. Bushey '72, C. Mitchell Goldman '72, Matthew R. Kaufman '72, Gregory Leary '73, Gerrard W. Rudmin '73.

Student Awards: Mr. Nunn, *Chairman;* Messrs. Bennett, Chapko, Ikeler, Stoddard, Willman.

Student Life: The Dean of Students, *Chairman;* the Director of the Moulton Union (ex officio); Messrs. J. B. Anderson, Cowing, Dane, Johnson, Lively; Edward T. Byrne '73, Thomas J. Cassidy '72, Vincent A. DiCara '72, James E. Lyons '74, Andrew J. Reicher '72.

Teaching as a Career: Mr. Hopkins, *Chairman;* the Alumni Secretary (ex officio), the Director of Placement; Messrs. G. R. Anderson, H. R. Brown, Fuchs, Hazelton.

SPECIAL

Ad Hoc Committee on Coeducation: Mr. Shipman, *Chairman;* the Vice President for Administration and Finance, the Dean of Students; Mr. Butt, Mrs. Sherman; Charles L. Godfrey '72, Beverly A. Newcombe '72, Steven E. Wendler '74.

Committee on Committees: Mr. Redwine (1972), *Chairman;* the Dean of the Faculty (ex officio); Messrs. Donovan (1975), Hanis (1973), Mathis (1974).

Educational Television: Mr. Beam, *Chairman;* the Director of Theater; Messrs. Gustafson, Paluska.

Environmental Studies: Mr. Hussey, *Chairman;* Messrs. Butcher, Freeman, Gustafson, Knowlton, McKee; Jim H. Harding '74, Jeff W. Litchman '73, William E. Offenberg '74.

Governance of the College: Messrs. Geary and Long, *Co-Chairmen;* the President, the Dean of the Faculty; Messrs. Ambrose, McGee, Rossides; Michael W. Bushey '72 (ex officio), C. Mitchell Goldman '72, Douglas C. Lyons '73, Harry G. Simmeth, Jr. '73.

Fulbright Scholarship Subcommittee of the Committee on Graduate Scholarships: Mr. Karl, *Chairman;* Messrs. Coursen, C. E. Huntington, Riley.

Medical Scholarship Subcommittee of the Committee on Graduate Scholarships: The President, *Chairman;* the Dean of the College, the College Physician; Messrs. LaCasce, J. M. Moulton.

Rhodes Scholarship Subcommittee of the Committee on Graduate Scholarships: The President (Rhodes Foundation Representative), *Chairman;* the Dean of Students; Messrs. Chittim, Potholm.

Summer Use of Pickard Theater: The Dean of the College, *Chairman;* the Director of Theater, the Vice President for Administration and Finance; Messrs. Beckwith, Taylor; Peter A. Bieger '73, Francis M. McEvoy III '73.

Ad Hoc Committee on Teaching Loads: Messrs. Donovan and Hughes, *Co-Chairmen;* Messrs. Hodge, Hopkins, Mayo, Stoddard; William R. Hamblen '72 and one other undergraduate.

Upward Bound Advisory: Mr. Stuckey, *Chairman;* the Dean of the College, the Vice President for Administration and Finance, the Director of Student Aid; Messrs. Donovan, Levine, Rossides, and two undergraduates.

Officers of Administration

GENERAL ADMINISTRATION

Roger Howell, Jr., A.B. *(Bowdoin)*, B.A., M.A., D.Phil. *(Oxford)*, LL.D. *(Nasson, Colby)*, L.H.D. *(Maine)*, *President.*

Arthur LeRoy Greason, Jr., A.B. *(Wesleyan)*, A.M., Ph.D. *(Harvard)*, *Dean of the College.*

Olin Clyde Robison, A.B. *(Baylor)*, D.Phil. *(Oxford)*, *Dean of the Faculty.*

Wolcott Anders Hokanson, Jr., A.B. *(Bowdoin)*, M.B.A. *(Harvard)*, *Vice President for Administration and Finance.*

Joseph Jefferson, A.B. *(Columbia)*, *Vice President for Development.*

Paul Luther Nyhus, A.B. *(Augsburg)*, S.T.B., Ph.D. *(Harvard)*, *Dean of Students.*

Charles Warren Ring, A.B. *(Hamilton)*, *Executive Secretary.*

Helen Buffum Johnson, *Registrar.*

Ashley Streetman, Jr., A.B. *(Bowdoin)*, *Assistant Dean of Students.*

Kathryn Drusilla Fielding, A.B. *(Connecticut College)*, *Secretary to the President.*

Mary Crowley Bernier, *Assistant to the Vice President for Administration and Finance.*

ADMISSIONS OFFICE

Richard Wood Moll, A.B. *(Duke)*, B.D. *(Yale)*, *Director.*

Walter Henry Moulton, A.B. *(Bowdoin)*, *Director of Student Aid and Assistant Director.*

Richard Fowler Boyden, A.B. *(Wesleyan)*, *Associate Director.*

David Rogers Treadwell, Jr., A.B. *(Bowdoin)*, *M.B.A. (Harvard)*, *Associate Director.*

Margaret Edison Dunlop, A.B. *(Wellesley)*, *Assistant.*

BUSINESS OFFICE

Alden Hart Sawyer, B.S. *(Bowdoin), Treasurer.* Portland

Thomas Martin Libby, A.B. *(Maine), Bursar.*

James Packard Granger, B.S. *(Boston University),* C.P.A., *Controller.*

Betty Mathieson Massé, *Assistant to the Bursar.*

CAREER COUNSELING AND PLACEMENT

Samuel Appleton Ladd, Jr., B.S. *(Bowdoin), Director.*

CENTRALIZED DINING SERVICE

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PEARY-MacMILLAN ARCTIC MUSEUM

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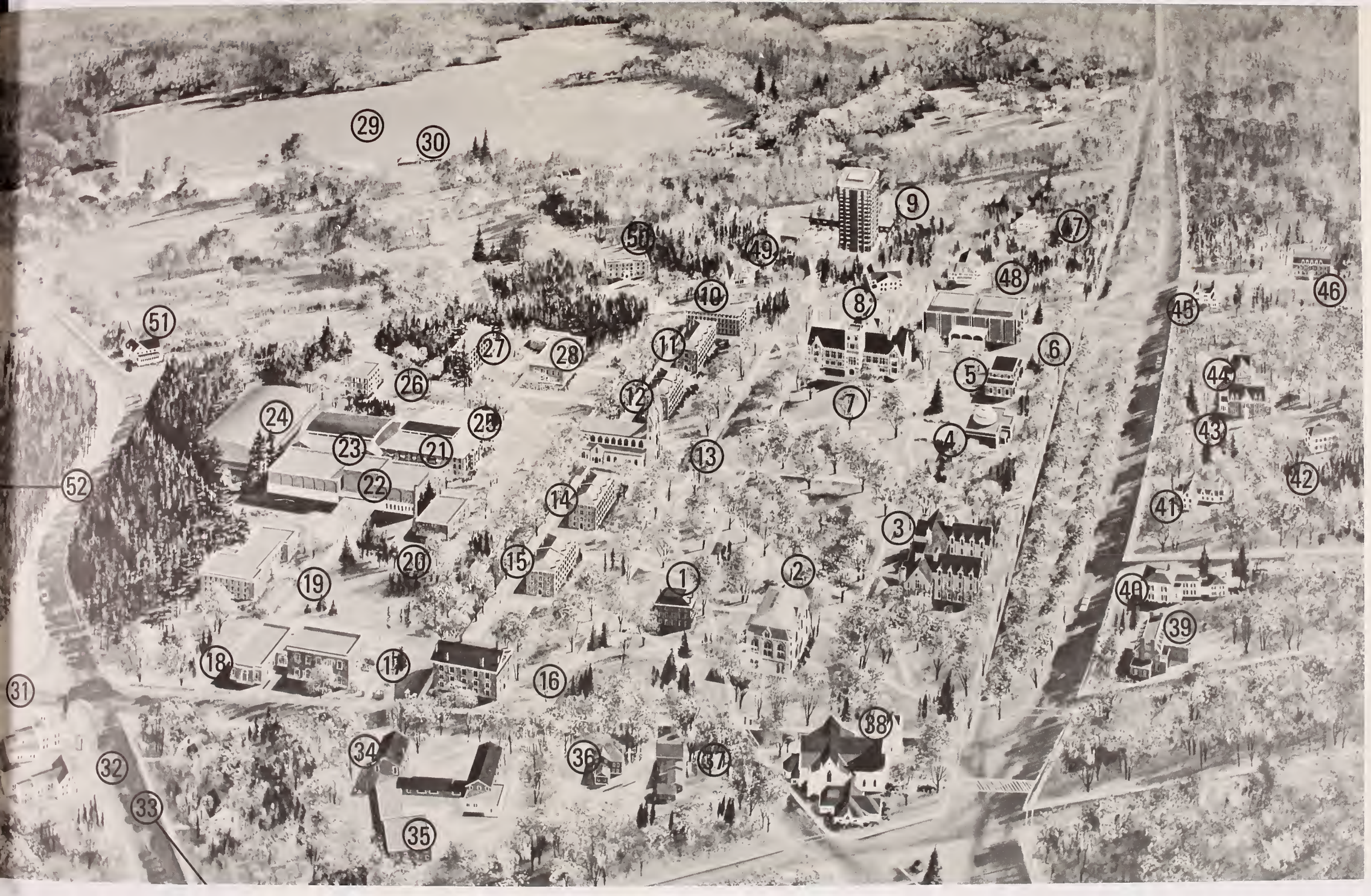
College Campus and Buildings

BOWDOIN College is located in the town of Brunswick, Maine, which was first settled in 1628 on the banks of the Androscoggin River, a few miles from the shores of Casco Bay. The traveling time by car from Boston is about two and one-half hours, and from New York about eight hours. The present campus, which was originally a sandy plain covered with blueberries and pines, is now a spacious tract of 110 acres containing more than thirty buildings and several playing fields.

Massachusetts Hall is the oldest building on the campus, having been completed in 1802. For several years it housed the students, and all classes were held there. In late years, until the fall of 1965, the president and some of the other college officials had their offices in this historic old building. It is now used for offices for some of the members of the Faculty.

The work of the College has its heart and center in the Nathaniel Hawthorne-Henry Wadsworth Longfellow Library, which contains the accumulations of over a century and a half. The nucleus of its more than 400,000 volumes is the treasured collection of books and pamphlets bequeathed by the Honorable James Bowdoin, the earliest patron of the College. These "Bowdoin Books," rich in French literature, American history, and mineralogy, were supplemented by the same generous benefactor's gift of his art collection containing many paintings of old and modern masters. Among the paintings are the portraits of Thomas Jefferson and James Madison by Gilbert Stuart, and a notable collection of portraits by the distinguished colonial artist, Robert Feke. These and other treasures are exhibited in the Walker Art Building. The resources of the Library and Museum are described elsewhere in the catalogue.

College classes are held in Memorial Hall, Banister Hall, Adams Hall, Hubbard Hall, the Searles Science Building, Sills Hall, Smith Auditorium, Cleaveland and Gibson halls, the Walker Art Building, the Senior Center, and the Afro-American Center. When students are not engaged in the library, laboratories, and recitation rooms, they have at their disposal many admirably equipped facilities for recreation. These resources include the Moulton Union, the Morrell Gymnasium, the Sargent Gymnasium, the Hyde Athletic Building, the Curtis Pool, the Arena, and the playing fields of the College. Another valuable adjunct for the health of the student body is the Dudley Coe Memorial Infirmary; its facilities and the services of the college physician are available to all students.



1. Massachusetts Hall
2. Pickard Theater in Memorial Hall
3. Searles Science Bldg.
4. Walker Art Bldg.
5. Gibson Hall
6. Hawthorne-Longfellow Library and Hall.
7. Hubbard Hall
8. Afro-American Center
9. Senior Center
10. Coleman Hall
11. Hyde Hall
12. Appleton Hall
13. Chapel, Banister Hall
14. Maine Hall
15. Winthrop Hall
16. Adams Hall
17. Sills Hall
18. Smith Auditorium
19. Cleaveland Hall
20. Heating Plant
21. Sargent Gymnasium
22. Morrell Gymnasium
23. Hyde Athletic Bldg.
24. Arena
25. Curtis Swimming Pool
26. Dudley Coe Infirmary
27. Moore Hall
28. Moulton Union
29. Pickard Field
30. Pickard Field House
31. President's House
32. Alumni House
33. Dean of the Faculty's House
34. Rhodes Hall
35. Grounds and Bldgs. Receiving Dept.
36. Getchell House
37. Ham House
38. First Parish Church
39. Alpha Delta Phi
40. 232 Maine St.
41. Alpha Rho Upsilon
42. Beta Theta Pi
43. Theta Delta Chi
44. Psi Upsilon
45. Dean of the College's House, Chase Barn Chamber
46. Chi Psi
47. Delta Sigma
48. Delta Kappa Epsilon
49. Baxter House
50. Zeta Psi
51. Alpha Kappa Sigma
52. Whittier Field and Hubbard Grandstand

THE COLLEGE BUILDINGS

Massachusetts Hall, planned in 1798 and completed in 1802, was the first college building erected. In 1936 the entire building was remodeled, and until 1965 it provided quarters for some of the administrative officers. In 1941, through a gift of Frank Herbert Swan, LL.D., of the Class of 1898, the third floor was restored and furnished as a Faculty Room. The building is now used for faculty offices.

Maine Hall (1808), known originally as "the College," and named later to commemorate the admission of Maine to the Union; Winthrop Hall (1822), named in honor of Governor John Winthrop of the Massachusetts Bay Colony; Appleton Hall (1843), named in honor of the second president of the College; Hyde Hall (1917), named in honor of the seventh president of the College and built from contributions from many of the alumni; Moore Hall (1941), named in honor of his father by the donor, Hoyt Augustus Moore, LL.D., of the Class of 1895; and Coleman Hall (1958), named in honor of the family of the donor, Jane Coleman Pickard (Mrs. Frederick W. Pickard), are the six campus dormitories. In 1964-1966 the interiors of Winthrop, Maine, and Appleton halls were completely renovated.

The Chapel, a Romanesque church of undressed granite, designed by Richard Upjohn, was built during the decade from 1845 to 1855 from funds received from the Bowdoin estate. The façade is distinguished by twin towers and spires which rise to the height of 120 feet. The interior resembles the plan of English college chapels, with a broad central aisle from either side of which rise the ranges of seats. The lofty walls are decorated with twelve large paintings. The Chapel stands as a monument to President Leonard Woods, fourth president of the College, under whose personal direction it was erected. The flags, added in recent years, are of the original thirteen colonies plus Maine, which was a part of Massachusetts at the time of the founding of the College in 1794. A set of eleven chimes, the gift of William Martin Payson, of the Class of 1874, was installed in the southwest tower in 1924. In the Chapel is an organ given in 1927 by Cyrus H. K. Curtis, LL.D. That portion of the chapel building which formerly housed the reading rooms and stack space of the college library was named Banister Hall in 1850 in recognition of the gifts of the Honorable William Banister. It now contains the Office of Career Counseling

and Placement and the classrooms and laboratories of the Department of Psychology.

Seth Adams Hall was erected in 1860-1861. It was named in honor of Seth Adams, Esq., of Boston, who contributed liberally towards its construction. The building stands west of the Presidents' Gateway. From 1862 until 1921 it housed the classrooms of the Medical School of Maine. It is now used for lectures, recitations, conferences, and faculty offices.

Memorial Hall, built in 1868, is a structure of local granite in the Gothic style. It is a memorial to the graduates and students of the College who served in the Civil War whose names and ranks are inscribed on bronze plaques in the lobby. The lower story contains classrooms and an experimental theater. The entire interior was rebuilt in 1954-1955 to house the Pickard Theater, one of the gifts of Frederick William Pickard, LL.D., of the Class of 1894.

The President's House, built in 1860 by Captain Francis C. Jordan, originally stood on the lot at 77 Federal Street. It was purchased by the College in 1867 and was occupied by President Harris until 1871. The house was purchased by Peleg W. Chandler, and in 1874 he had it moved to its present location at the corner of Federal and Bath streets. At a later date the College reacquired the house, and shortly after President Hyde assumed office in 1885, it became his official residence. In 1926 the ballroom was added, and in 1952 the house was modernized and partially furnished by the College.

The Observatory was erected in 1890-1891 with funds given by John Taylor, Esq., of Fairbury, Illinois. It stands on the southeast corner of Pickard Field and is reached from the Harpswell Road. In 1965 it was renovated and a new telescope was installed.

The Walker Art Building, designed by McKim, Mead & White, was erected in 1892-1894. It was given to the College by the Misses Harriet and Sophia Walker, of Waltham, Massachusetts, as a memorial to their uncle, Theophilus Wheeler Walker, of Boston, a cousin of President Woods. A bronze bulletin board in memory of Henry Edwin Andrews, A.M., of the Class of 1894, director of the museum, 1920-1939, is located in Sculpture Hall. The building is surrounded on three sides by a paved terrace with supporting walls and parapets of granite. Granite and bronze sculptures adorn the front wall.

The Mary Frances Searles Science Building, designed by Henry Vaughan, was built in 1894 and completely renovated and modernized in 1952. It was the gift of Edward F. Searles, Esq., in memory of his wife. With the Walker Art Building and Gibson Hall, it forms the western side of the quadrangle. The building contains lecture rooms, laboratories, and libraries of the Departments of Biology and Physics.

Hubbard Hall, also designed by Henry Vaughan and erected in 1902-1903, was the gift of General Thomas H. Hubbard, LL.D., of the Class of 1857, and his wife, Sibyl Fahnestock Hubbard. For over sixty years, until the fall of 1965, it was the College Library. After suitable renovations it is now used for faculty offices, examination rooms, and the Department of Geology. Located in the basement is the Computing Center, which contains a PDP-10 time-sharing system. The center is available to the entire college community and is directed by a member of the Faculty. The Peary-MacMillan Arctic Museum is located on the first floor, and the Susan Dwight Bliss Room for rare books and bindings remains on the second floor.

The Hubbard Grandstand was given to the College in 1904 by General Thomas H. Hubbard, LL.D., of the Class of 1857. It is situated on Whittier Field, a tract of five acres, named in honor of Frank Nathaniel Whittier, M.D., of the Class of 1885, for many years director of the gymnasium, who was largely instrumental in its acquisition for varsity football and track in 1896. An electrically operated scoreboard, the gift of the widows of Harvey Dow Gibson, LL.D., of the Class of 1902, and Adriel Ulmer Bird, A.M., of the Class of 1916, was erected in 1960. Surrounding the field is an all-weather track dedicated to the memory of John Joseph Magee, coach, trainer, and director of track and field athletics from 1913 to 1955.

Sargent Gymnasium and General Thomas Worcester Hyde Athletic Building were erected in 1912. The Gymnasium was built from contributions from many of the students and alumni, and named in honor of Dudley A. Sargent, M.D., Sc. D., of the Class of 1875; the Athletic Building was given by John Hyde, Esq., of Bath, in memory of his father, Thomas Worcester Hyde, A.M., of the Class of 1861. In 1965-1966 Sargent Gymnasium was altered and renovated to make it part of the comprehensive plan for the indoor athletic facilities of the College.

The Dudley Coe Memorial Infirmary is a three-story brick building erected in 1916-1917. It was given by Thomas Upham Coe, M.D., of the Class of 1857, in memory of his son, and stands in the pines to the south of the Hyde Athletic Building. In 1957 it was enlarged through a gift by Agnes M. Shumway, A.M. (Mrs. Sherman N. Shumway). In 1962 it was licensed by the state as a private general hospital.

The Curtis Swimming Pool was given to the College in 1927 by Cyrus H. K. Curtis, LL.D. The Pool is housed in a separate wing attached to the Sargent Gymnasium; the Pool itself is of standard size, thirty by seventy-five feet, and is provided with every modern device for ensuring sanitation.

The Moulton Union, designed by McKim, Mead & White, was built in 1927-1928. It was given and partially endowed by Augustus Freedom Moulton, LL.D., of the Class of 1873, as a social, recreational, and service center for the College. In 1964-1965, a two-story extension was added on the south and east sides of the building. The spacious main lounge and several smaller, intimate lounges and student activity areas are provided for general social purposes. The Union also contains the college reception, information, and scheduling center, the campus telephone switchboard, a bookstore, dining facilities, and a game room. The Union stands just outside the quadrangle opposite Appleton, Hyde, and Moore Halls.

The Pickard Field House stands at the entrance of Pickard Field. It was given in 1937 by Frederick William Pickard, LL.D., of the Class of 1894, and Mrs. Pickard. The building contains a pleasant lounge as well as lockers and showers. Pickard Field, a tract of sixty-six acres, was presented to the College by Mr. Pickard in 1926. In 1952 nine acres were added to the Field by purchase, making a total area of seventy-five acres, thirty of which are fully developed playing fields. The Field contains the varsity and freshman baseball diamonds, several spacious playing fields for football and soccer, and ten tennis courts.

Rhodes Hall, formerly the Bath Street Primary School, was purchased from the Town of Brunswick by the College in 1946 to provide additional facilities for instruction and administration. The building was named to commemorate the fact that three pupils of the school later achieved distinction as Rhodes scholars at Oxford University. Here are the offices of the Department of Grounds and Buildings and the headquarters of the ROTC.

Sills Hall and Smith Auditorium, designed by McKim, Mead & White, were completed in the autumn of 1950. The main structure was made possible by the first appropriations from the Sesquicentennial Fund, and was named after the eighth president of the College, Kenneth Charles Morton Sills (1879-1954), of the Class of 1901; the wing, containing an auditorium seating 210 persons, was built by appropriation of the Francis, George, David, and Benjamin Smith Fund, bequeathed by Dudley E. Wolfe, of Rockland. A language laboratory and speech center are located in the wing. In 1968 a donor who wished to remain anonymous established the Constance and Albert Thayer Speech Center Fund to maintain the speech center. The Fund was named in honor of Albert R. Thayer, A.M., of the Class of 1922, Harrison King McCann Professor of Oral Communication Emeritus, and his wife.

Parker Cleaveland Hall, designed by McKim, Mead & White, was dedicated on June 6, 1952. The building was made possible by donors to the Sesquicentennial Fund. It houses the Department of Chemistry and bears the name of Parker Cleaveland, who taught chemistry and mineralogy at Bowdoin from 1805 to 1858, and was a pioneer in geological studies. Special gifts provided these facilities: The Kresge Laboratory of Physical Chemistry, The Wentworth Laboratory of Analytical Chemistry, The 1927 Room (a private laboratory), The Adams Lecture Room, The Burnett Room (a seminar room), and The Dana Laboratory of Organic Chemistry.

Sills Hall, Smith Auditorium, and Parker Cleaveland Hall are mainly of brick and designed in a simple modern classical architectural style. Together they bound respectively the north and east sides of a quadrangle on the eastern boundary of the campus.

The Harvey Dow Gibson Hall of Music, named for Harvey Dow Gibson, LL.D., of the Class of 1902, was dedicated in June 1954. Its construction was made possible by funds donated by Mrs. Harvey Dow Gibson; by Mrs. Gibson's daughter, Mrs. Whitney Bourne Choate; by the Manufacturers Trust Company of New York; and by several friends of Mr. Gibson. Designed by McKim, Mead & White, the building contains soundproof class, rehearsal, and practice rooms, a recording room, several rooms for listening to records, offices, and the music library. The common room is richly paneled in carved walnut from the music salon designed in 1724 by Jean Lassurance (1695-1755) for the Hôtel de Sens in Paris.

The Ham House, at 3 Bath Street, was for many years the residence of Roscoe J. Ham, L.H.D., George Taylor Files Professor of

Modern Languages from 1921 to 1945. Acquired by the College in 1954, it houses the offices of Bowdoin Upward Bound.

The Pickard Theater in Memorial Hall, a gift of Frederick William Pickard, LL.D., of the Class of 1894, was dedicated in June 1955. The Theater, with comfortable seats for more than 600, contains a stage fifty-five feet wide and thirty feet deep; the space from the stage floor to the gridiron is forty-eight feet. The floor of the auditorium slopes to an orchestra pit, and under it are lounge and coat rooms. Over the auditorium is shop space for the construction and storage of scenery and stage properties.

The Getchell House, located at 5 Bath Street, is diagonally opposite Adams Hall. A three-story frame building, it was given to the College in 1955 by Miss Gertrude Getchell, of Brunswick, and completely refurbished in 1956. It houses the offices of the News Services.

New Meadows River Sailing Basin. In 1955 the College purchased a cabin and section of shore front with a dock on the east side of the New Meadows River Basin, to provide facilities for the sailing team. The equipment includes five fiberglass dinghies and a power-driven crash boat.

The Hockey Arena was built in 1956 with contributions from alumni, students, and friends of the College. It contains seats for twenty-four hundred spectators and a regulation ice-hockey rink with a refrigerated surface two hundred feet long and eighty-five feet wide, as well as shower-bath and locker rooms, and a snack bar. It is located to the east of the Hyde Athletic Building; the entrance faces College Street. The Arena serves primarily the College's physical education activities, especially intramural and intercollegiate contests, and recreational skating for undergraduates.

The Johnson House, named in memory of Professor Henry Johnson, Ph.D., of the Class of 1874, a distinguished member of the Bowdoin Faculty from 1877 to 1918, and Mrs. Johnson, is located at the corner of Maine and Boody streets across from the southwestern entrance to the campus. Bequeathed to the College in 1957, this commodious residence is now used as the home of the dean of the College.

The Chase Barn Chamber, named in memory of Professor Stanley Perkins Chase, Ph.D., of the Class of 1905, Henry Leland Chapman Professor of English Literature from 1925 to 1951, and Mrs. Chase, is a handsome room located in the ell of the Johnson House.

Designed by Felix Burton '07, in the Elizabethan style, the Barn Chamber is heavily timbered, contains a small stage, an impressive fireplace, and houses many of the books from the Chase library. The Chamber is used for small classes, seminars, and conferences.

The Little-Mitchell House, at 6-8 College Street, houses the Afro-American Center. The Mitchell House was named in honor of Professor Wilmot Brookings Mitchell, L.H.D., of the Class of 1890, Edward Little Professor of Rhetoric and Oratory from 1893 to 1939. It was given by Professor Mitchell in 1961. The Little House, the 8 College Street side of the connected buildings, was acquired by the College in 1962.

The Alumni House, at 83 Federal Street, next to the President's House, was bequeathed to the College in 1933 on the death of Professor Marshall Perley Cram, Ph.D., of the Class of 1904. Renovated in 1962 and maintained by the College, it is the center of alumni activities at Bowdoin and contains lounges, rest rooms, and other facilities for the use of visiting alumni and their families and guests. The Ladies' Lounge, located on the second floor, was presented by the Society of Bowdoin Women in 1965.

The Senior Center, designed by Hugh Stubbins and Associates, Inc., was completed in the autumn of 1964. Built from funds contributed during the Capital Campaign, it consists of three buildings, each specifically designed to support and reinforce the educational objectives of the program for the senior year. The main building, a sixteen-story tower, includes living and study quarters, seminar and conference rooms, lounges, accommodations for visitors, and the director's office. The entire first floor of the tower has been named in memory and honor of the late Henry Quinby Hawes, A.M., of the Class of 1910, and Mrs. Hawes. Wentworth Hall, named in memory of Walter V. Wentworth, Sc.D., of the Class of 1886, an overseer of the College from 1929 to 1958, is a two-story building adjacent and connected to the tower. It contains the dining room, main lounge, and other rooms for instructional, social, and cultural activities. Chamberlain Hall, named in memory of General Joshua Lawrence Chamberlain, LL.D., of the Class of 1852, Civil War hero, governor of Maine, and president of Bowdoin from 1871 to 1883, contains apartments for the director and other participants in the program and a small banquet room for use on special occasions.

The Malcolm E. Morrell Gymnasium, also designed by Hugh Stubbins and Associates, Inc., is a 50,000-square-foot building con-

nected to Sargent Gymnasium. Built in 1964-1965 from funds contributed during the Capital Campaign, it was in June 1969 named in memory of Malcolm Elmer Morrell, of the Class of 1924, Bowdoin's director of athletics from 1928 to 1967. The Gymnasium contains a modern basketball court with seats for about 2,500 persons, four visiting team rooms, eleven squash courts, offices for the director of athletics and his staff, and other rooms for physical education purposes.

The Nathaniel Hawthorne-Henry Wadsworth Longfellow Library, designed by Walker O. Cain and Associates, of New York, was built in 1964-1965 from funds contributed during the Capital Campaign. It was named after two of Bowdoin's literary giants, both members of the Class of 1825. It houses the principal portions of the library of the College and—in its western end, named Hawthorne-Longfellow Hall—most of the general administrative offices of the College. Utilizing the latest concepts in library design, the Library was planned to complement the older buildings of the College and, at the same time, be compatible with the newer architectural concept of the Senior Center.

The Haskell House, at 72 Federal Street, was given to the College by Henry C. Haskell, A.B., B.S., of the Class of 1918, and Mrs. Haskell in memory of Alaric W. Haskell, Sc.D., the dean of Maine dentists, who practiced his profession in Brunswick from 1888 until his retirement in 1955. A two-and-a-half-story colonial home, it was Dr. Haskell's residence for many years. It is the residence of the dean of the Faculty.

OTHER MEMORIALS

The Thorndike Oak, standing near the center of the campus, is dedicated to the memory of George Thorndike, of the Class of 1806, who planted the tree in 1802 after the first chapel exercises.

The Class of 1875 Gateway was erected in 1901 as a memorial to members of the Class. It forms the Maine Street entrance of the Class of 1895 Path.

The Class of 1878 Gateway, erected in 1903, is a memorial to members of the Class. It is on Bath Street between Memorial Hall and the First Parish Church.

The Warren Eastman Robinson Gateway, erected in 1920 at the southwestern entrance to the campus, is a memorial to Lieuten-

ant Warren Eastman Robinson, of the Class of 1910, who lost his life in the service of his country.

The Franklin Clement Robinson Gateway, erected in 1923, is a memorial to Franklin Clement Robinson, LL.D., of the Class of 1873, for thirty-six years a teacher at Bowdoin College, and to his wife, Ella Maria Tucker Robinson. The gateway forms the northwestern entrance to the campus.

The Class of 1898 Bulletin Board, erected in 1924 near the Chapel, is a memorial to members of the Class. It is made of bronze, is double-faced and illuminated.

The Class of 1903 Gateway, erected in 1928, is a memorial to members of the Class. It forms the main entrance to the Whittier Athletic Field.

The Memorial Flagpole, designed by McKim, Mead & White, was erected in 1930 with funds given by the alumni in memory of the twenty-nine Bowdoin men who lost their lives in World War I. The Honor Roll is engraved on the mammoth granite base surmounted by ornamental bronze. The flagpole stands in the southwestern corner of the campus between Hubbard Hall, Walker Art Building, and Gibson Hall.

The Presidents' Gateway, erected in 1932, is a gift of the Class of 1907 in memory of William DeWitt Hyde, D.D., LL.D., president of the College from 1885 to 1917, and "as a mark of the enduring regard of all Bowdoin men for the leadership of their Presidents." The gateway forms one of the northern entrances to the campus from Bath Street.

The Bowdoin Polar Bear, placed in 1937, is a memorial to members of the Class of 1912. The base and life-size statue were carved by Frederick George Richard Roth. The figure stands in front of the entrance to the Sargent Gymnasium.

The Harry Howard Cloudman Drinking Fountain, erected in 1938, is in memory of Harry Howard Cloudman, M.D., of the Class of 1901, one of the outstanding athletes at the turn of the century. It stands near the Sargent Gymnasium.

The Alpheus Spring Packard Gateway, erected in 1940 on College Street, is a memorial to Professor Alpheus Spring Packard, A.M., D.D., of the Class of 1816, a member of the Bowdoin Faculty from 1819 to 1884.

The Class of 1910 Path was laid in 1940 as a memorial to members of the Class. It extends from Bath Street to Coleman Hall, running parallel to the four dormitories and in front of the entrance to the Chapel.

The Class of 1895 Path was laid in 1945 as a memorial to members of the Class. It extends from the Chapel to the Class of 1875 Gateway.

The Class of 1886 Pathways are a network of walks laid in 1945 as a memorial to members of his Class through the generosity of Walter Vinton Wentworth, Sc.D. The pathways traverse an area lying north of Massachusetts Hall.

The Class of 1919 Path, laid in 1945, is a memorial to members of the Class. It extends from the north entrance of Winthrop Hall, past the entrances to Massachusetts Hall and Memorial Hall, to the Franklin Clement Robinson Gateway.

The Class of 1916 Path was laid in 1946 as a memorial to members of the Class. It extends from Massachusetts Hall to the Alpheus Spring Packard Gateway.

The Frank Edward Woodruff Room, in Sills Hall, is a memorial to Frank Edward Woodruff, A.M., a member of the Bowdoin Faculty from 1887 to 1922. The room was provided in 1951 through the generous bequest of Edith Salome Woodruff.

The Peucinian Room, built in 1951, is in a corner of the lower floor of Sills Hall. It is paneled in timber taken from the Bowdoin Pines. The motto of the Peucinian Society, *Pinos loquentes semper habemus,* is carved on a heavy timber above the fireplace. The fireplace and paneling are the gift of the Bowdoin Fathers Association in memory of Suzanne Young (1922-1948).

The Class of 1924 Radio Station (WBOR, "Bowdoin-on-Radio") was given by the Class of 1924 on the occasion of its twenty-fifth reunion. The station, installed in 1951 on the second floor of the Moulton Union, contains two broadcasting studios and a fully equipped control room, which are air-conditioned and protected against sound disturbance by walls of acoustical tiling.

The Elijah Kellogg Tree, a large pine dedicated to the memory of the Reverend Elijah Kellogg, A.M., of the Class of 1840, stands near the corner of Bath Street and Sills Drive.

The Gardner Bench, near the Hawthorne-Longfellow Library, is dedicated to the memory of William Alexander Gardner, of the

Class of 1881, and was presented to the College by Mrs. Gardner in June 1954.

The Chase Memorial Lamps, dedicated to the memory of Stanley Perkins Chase, Ph.D., of the Class of 1905, Henry Leland Chapman Professor of English Literature (1925-1951), stand on the Moulton Union terrace. They were presented to the College by Mrs. Chase in June 1954.

The Dane Flagpole, in honor of Francis Smith Dane, of the Class of 1896, stands in the northwest corner of Whittier Field. The gift of Mrs. Annie Lawrence E. Dane and a member of her family, the flagpole was placed in 1954 in recognition of Mr. Dane's efforts as an undergraduate to acquire an adequate playing field for the College.

The Simpson Memorial Sound System, the gift of Scott Clement Ward Simpson, of the Class of 1903, and Mrs. Simpson, is dedicated to the memory of their parents. The system, including a high-fidelity record player and other teaching aids in music, was installed in Gibson Hall in 1954. A fund for its maintenance was established by Mr. and Mrs. Simpson in 1955.

The James Frederick Dudley Classroom in Banister Hall was renovated and furnished in 1954 as a memorial to James F. Dudley, of the Class of 1865, by the bequest of Nettie S. Dudley.

The Catlin Path, extending from the Warren Eastman Robinson Gateway to Hubbard Hall, was laid in 1954 through the generous gift of Warren Benjamin Catlin, Ph.D., Fayerweather Professor of Economics and Sociology.

The Shumway Tree, a Rocky Mountain fir in memory of Sherman Nelson Shumway, A.M., LL.B., of the Class of 1917, generous benefactor and an overseer of the College (1927-1954), was replanted on the campus in front of Hawthorne-Longfellow Hall and dedicated in June 1955.

The Turner Tree, a maple in memory of Perley Smith Turner, A.M., of the Class of 1919, professor of education at Bowdoin (1946-1956), was replanted on the campus east of Smith Auditorium by classmates and friends and dedicated in June 1957.

The Pickard Trees, twelve hawthornes in memory of Jane Coleman Pickard (Mrs. Frederick William Pickard), donor of Coleman Hall and co-donor of the Pickard Field House, were replanted

around Coleman Hall by the Society of Bowdoin Women and dedicated in June 1959.

The Class of 1909 Organ, an electronic instrument for use in the Pickard Theater, was presented by the Class of 1909 on the occasion of its fiftieth anniversary and dedicated in June 1960. A fund with a current balance of $3,366, given at the same time, is for the maintenance of the organ and for the support of musical education in the College.

Little Ponds Wildlife Sanctuary is the gift of Mrs. Harold Trowbridge Pulsifer in memory of her husband, Harold Trowbridge Pulsifer, and Sheldon Ware, a neighbor. Located at Bethel Point, East Harpswell, and given in 1961, this tract of several acres includes a meadow, pond, woodland, and shore frontage. It is used for the study and conservation of wildlife and is the site of the Bowdoin College Marine Laboratory.

The Class of 1937 Lounge, located in the Alumni House, was presented by the Class of 1937 on the occasion of its twenty-fifth reunion in 1962. It is a large, informal, and rustic room, with pine furniture, old pictures of Bowdoin and of Brunswick, and a large hewn granite fireplace. The lounge was given in memory of Harold L. Cross, Jr., David T. Deane, J. Donald Dyer, and Maxwell A. Eaton, who gave their lives in the service of their country during World War II.

The Cecil Cleophus McLaughlin Study, in Chamberlain Hall, is a memorial to Cecil Cleophus McLaughlin, M.D., of the Class of 1923. The study was the gift of his wife, and is for the use of the director of the Senior Center.

The Hutchinson Lounge and Hutchinson Terrace, in Wentworth Hall, are memorials to Charles Lyman Hutchinson, A.B., of the Class of 1890, a prominent lawyer in Portland. They are on the south side of the building between the main dining room and lounge.

The Wilmot Brookings Mitchell Lounge, on the second floor of Wentworth Hall, is a memorial to Wilmot Brookings Mitchell, Litt.D., L.H.D., of the Class of 1890, a beloved teacher of English for almost fifty years.

The Harrison King McCann Music Lounge, on the sixteenth floor of the tower of the Senior Center, is a memorial to Harrison King McCann, A.M., of the Class of 1902, for thirty years an overseer of the College.

The Stuart Franklin Brown Lobby, in the Hawthorne-Longfellow Library, is a memorial to Stuart Franklin Brown, of the Class of 1910, and was the gift of Mrs. Brown.

The Class of 1914 Librarian's Office, in the Hawthorne-Longfellow Library, is in honor of the members of the Class of 1914, which made a specific gift for this purpose. The office is on the first floor to the left of the entrance.

The Class of 1938 Newspaper Room, in the Hawthorne-Longfellow Library, is in honor of the members of the Class of 1938. The room is on the first floor to the right of the entrance.

The William John Curtis 1875 Room, in the Hawthorne-Longfellow Library, is a memorial to William John Curtis, LL.D., of the Class of 1875, for over twenty-five years an overseer and trustee of the College, and a generous benefactor always in the name of his Class. The room, in the northeast corner of the first floor, is used for current periodicals.

The Gerald Gardner Wilder Cataloguing Room, in the Hawthorne-Longfellow Library, is a memorial to Gerald Gardner Wilder, A.M., of the Class of 1904, librarian of the College from 1916 to 1944. The room is in the southeast area on the first floor.

The Melville Weston Fuller Reading Room, in the Hawthorne-Longfellow Library, is a memorial to Melville Weston Fuller, LL.D., of the Class of 1853, chief justice of the United States Supreme Court from 1888 to 1910, and an overseer and trustee of the College from 1875 to 1910. The room occupies the southern bay on the first floor.

The George Thomas Little Bibliography and Card Catalogue Area, in the Hawthorne-Longfellow Library, is a memorial to George Thomas Little, Litt.D., of the Class of 1877, librarian of the College from 1885 to 1915. The area occupies the center portion of the first floor.

The Robert Peter Tristram Coffin Reading Room, in the Hawthorne-Longfellow Library, is in memory of Robert Peter Tristram Coffin, Litt.D., of the Class of 1915, a distinguished author, poet, and professor. The room was the gift of the Class of 1915 on the occasion of its fiftieth reunion, and occupies the northern bay on the first floor.

The Franklin Pierce Reading Room, in the Hawthorne-Longfellow Library, is in memory of Franklin Pierce, LL.D., of the

Class of 1824, the fourteenth president of the United States. This informal reading room is at the east end of the second floor.

The Harold Lee Berry Special Collections Suite, in the Hawthorne-Longfellow Library, is in memory of Harold Lee Berry, A.M., of the Class of 1901, for nearly forty years an overseer and trustee of the College, and generous benefactor of the College. The suite comprises several rooms in the northeast area of the third floor.

The Dean Paul Nixon Lounge-Conference Room, in the Hawthorne-Longfellow Library, is a memorial to Paul Nixon, L.H.D., LL.D., for over forty years a teacher of Latin and dean of the College from 1918 to 1947. The room is on the southeast corner of the third floor.

The William Pitt Fessenden Conference Room, in Hawthorne-Longfellow Hall, is a memorial to William Pitt Fessenden, LL.D., of the Class of 1823, United States senator 1854-1864, 1865-1869; United States secretary of the treasury 1864-1865; and overseer and trustee of the College from 1843 to 1869. The room is on the second floor, near the offices of the president and deans.

The Magee Training Room, in the Morrell Gymnasium, is a memorial to John Joseph Magee, coach, trainer, and director of track and field athletics from 1913 to 1955.

The Colbath Room, in the Morrell Gymnasium, is a memorial to Henry Jewett Colbath, A.B., of the Class of 1910, an outstanding athlete, and dedicated teacher and coach.

The Morrell Office, in the Malcolm E. Morrell Gymnasium, was given by members of the Class of 1924 in honor of their classmate Malcolm Elmer Morrell, B.S., director of athletics from 1928 to 1967. It is the office of the director of athletics.

The Class of 1922 Fountain, between Hawthorne-Longfellow Library and Hubbard Hall, was constructed in 1968. It is the gift of Mrs. John C. Pickard of Wilmington, Del., in honor of her husband's class. The Fountain was designed by André R. Warren, assistant superintendent of grounds and buildings, and was constructed by workmen of the Department of Grounds and Buildings.

The Class of 1929 Electronic Chimes System, for automation of the Chapel chimes, was presented by the Class of 1929 on the occasion of its fortieth reunion. A fund for maintenance of the system was established at the same time.

The Donovan D. Lancaster Lounge, in the Moulton Union, was named in November 1970 in honor of Donovan D. Lancaster, A.B., of the Class of 1927, Director of the Moulton Union and the Centralized Dining Service Emeritus and a member of the College staff for over forty years. The lounge is used for lectures and exhibitions of art and photography throughout the year.

The John Joseph Magee Track, surrounding Whittier Field, was given by a group of alumni and friends to honor the memory of John Joseph Magee, coach, trainer, and director of track and field athletics from 1913 to 1955 and an Olympic team coach in 1920, 1924, 1928, and 1932. Constructed in 1970, the Olympic regulation all-weather track was dedicated at Commencement in 1971.

The Fritz C. A. Koelln Room, in Sills Hall, was dedicated at Commencement, 1971, in honor of Fritz C. A. Koelln, Ph.D., George Taylor Files Professor of Modern Languages Emeritus and a member of the Department of German from 1927 until his retirement in 1971, "in recognition of his devoted service to the College and the inspiration he has been to so many undergraduates over the years."

General Information

Terms and vacations: The College holds two sessions each year, beginning in September and January. The dates of the semesters and the vacation periods are indicated on the College Calendar on pages vi-viii.

Registration and Enrollment: All students are required to register at the opening of each semester in accordance with schedules posted at the College and mailed to students registering for the first time.

Offices and Office Hours: The Offices of General Administration, the Admissions Office, the Business Office, and the Development Office are located in Hawthorne-Longfellow Hall, the west end of the Nathaniel Hawthorne-Henry Wadsworth Longfellow Library. The Office of the College Counselor is in the Moulton Union, the Office of Career Counseling and Placement is in Banister Hall (North), and the Department of Grounds and Buildings is in Rhodes Hall.

In general, the administrative offices of the College are open from 8:30 to 5:00 Monday through Friday.

Telephone Switchboard: The College has a central telephone switchboard located in the Moulton Union. All college phones are connected to this switchboard. The number is 207-725-8731.

College Bills and Fees: Before the opening of the fall semester a statement covering tuition, room rent, board, and fees for the year will be sent to each student. If this statement should be sent to someone other than the student, a request in writing to do so should be made to the Business Office.

Charges for the year may be paid in two equal payments to be made not later than September 1 and January 15.

Students whose term bills are not paid by September 1 or January 15 may not register or attend classes except under special circumstances and with approval of the Deans' Office. Bills incurred during the term must be paid when due. Students with unpaid bills are not eligible for academic credit, transcripts, or degrees. Special problems should be discussed with the dean of students or the director of student aid.

Tuition: The tuition fee for the 1971-1972 academic year is $1,350 each semester or $2,700 for the year. There is a per-course charge of $340 for special students taking less than four courses

a semester. Any student completing the number of courses required for the degree in less than eight semesters must pay tuition for eight semesters, except that the dean of the College is authorized to waive the requirements in such cases where the factors of advanced placement, or junior year abroad, or exchange or transfer status, or similar special circumstances exist. Work taken at other institutions to make up deficiencies in scholarship at Bowdoin shall not relieve the student of the obligation to pay tuition covering eight full semesters at Bowdoin College.

There are opportunities at Bowdoin to receive financial aid in meeting the charge for tuition. Detailed information about scholarships, loans, and other financial aid may be found on pages 52-81.

College Rooms and Board: Freshmen are assigned rooms by the Admissions Office but may indicate by letter to it their preference in the matter of roommates. Sophomores and juniors apply for rooms to the assistant dean of students. Seniors are assigned rooms in the Senior Center by the director of the Senior Center. An applicant may indicate with whom he wishes to share a room, and the College will honor this preference whenever possible. The suites in the college dormitories consist of a study and bedroom which are provided with essential furniture. Students should furnish blankets and pillows; the College furnishes bed linen and towels. College property is not to be removed from the building or from the room in which it belongs; occupants are held responsible for any damage to their rooms. Room rent is $600 a year ($450 a year for triple rooms in the dormitories) and board is $700 a year. These charges are the same regardless of whether a student lives in a college or fraternity residence or whether he eats at the Union, the Senior Center, or a fraternity. Every student pays these charges unless he has established residence with his family or is married and living with his wife or has been excused by the dean of students.

Other College Charges: All damage done to the buildings or other property of the College by persons unknown may be assessed equally on all the undergraduates. The College collects, in each academic year, student activities fees amounting to $75. A fee of $10 each semester for psychological counseling service is charged each regularly enrolled undergraduate student. The cost of tuition, board, room, and fees amounts to about $2,100 for the semester. To these items must be added the cost of textbooks,

personal expenses (including travel), and fraternity expenses for members of these organizations.

Refunds: Refunds to students leaving college during the course of a semester will not be made unless for exceptional reasons. Any refund made will be in accordance with the schedule posted by the bursar of the College.

Health Care: The facilities of the Dudley Coe Memorial Infirmary (licensed as a private general hospital) and the services of the college physicians are available to all students. If ill, students should immediately report to the College Infirmary.

To cover costs of treatment and care during the college year, in the Infirmary or elsewhere, each student is required to have adequate health and accident insurance. This must be purchased through the College (the group rate is $35 per semester in 1971-1972), unless a student is covered otherwise by adequate health insurance certified by his parent or guardian at the time possible exemption from this requirement is requested. Coverage may be extended through the summer vacation by payment of an extra premium. Applications for the summer coverage are available at the Bursar's Office.

Motor Vehicles: All motor vehicles, including motorcycles and motor scooters, must be properly registered at the Dean of Students' Office. A registration fee of $5 per semester is charged to all students registering a motor vehicle. Failure to register a vehicle will result in a fine of $25. Adequate liability insurance is required.

The New England Association of Colleges and Secondary Schools accredits schools and colleges in the six New England states. Membership in one of the six regional accrediting associations in the United States indicates that the school or college has been carefully evaluated and found to meet standards agreed upon by qualified educators. Colleges support the efforts of public school and community officials to have their secondary school meet the standards of membership.

Statistics: As of June 1971, 20,556 students have been matriculated at Bowdoin College, and 14,774 degrees in course have been awarded. In addition, earned master's degrees have been awarded to 203 postgraduate students. Living alumni include 7,555 graduates, 2,017 nongraduates, 29 medical graduates, 108 honorary graduates, and 202 graduates in the special postgraduate program.

Admission to the College

ONE can analyze the profile of Bowdoin's most recent class and make a rough prediction of a particular student's chances for admission to the next class. Approximately 75 percent of those admitted will have graduated from a public school, and the large majority will have ranked in the upper fifth of their graduating class. Well over half of the independent school graduates will have been in the upper third of their class. The typical entering freshman (although a number of exceptions could be cited) will have had four years of English, three or four years of a foreign language, mathematics through trigonometry, two or three years of laboratory sciences, and history. But helpful as statistics can be in revealing the nature of a class, it would be wrong to assume that they reveal the whole story of who is admitted.

To be certain, Bowdoin is primarily interested in the strong student. It is interested in the person who is intellectually inclined and is putting his talents to good use. But "drive" and "thirst" are perhaps closer to the mark in describing what the College is seeking. Bowdoin's decision to make College Board Tests optional (announced in January 1970) is evidence that the College feels high aptitude is less important than a keen sense of involvement in the world of ideas. The true student picks the most demanding courses, creates independent projects, and seeks to learn beyond what is required. Thus, tests and grades are only part of the story in judging the student. Teachers' and counselors' reports and samples of the student's writing and ideas often prove more valuable than test scores in revealing attitude, determination, and creativity. Bowdoin's appraisal of the student is partly an analysis of grades and scores, but largely an analysis of attitude and desire.

Bowdoin is seeking a well-rounded class of individuals who are proud of their individuality. In the extracurricular realm, the College is looking for accomplishment and depth in areas of particular talent rather than surface involvement in a wealth of activities. Bowdoin seeks the exceptional social conscience, the exceptional writer, the exceptional musician, the exceptional athlete—people who have demonstrated sufficient discipline to become accomplished in an activity which will benefit not only the college community but also the general society thereafter.

To create a spirited and diverse community, Bowdoin is seeking a classful of differences. Proud of its tradition in educating Maine and New England students, Bowdoin seeks to balance their rep-

resentation with men and women from across the nation and the world. Those from the suburbs remain most welcome, but Bowdoin is actively seeking to make their college experience more vital by introducing more students from the inner-city and the ghetto.

In summary, Bowdoin is selecting a class of students who share certain characteristics: drive, generous aptitude, and a genuine desire to learn. On the other hand, Bowdoin seeks a class of differences: students with different talents, of differing backgrounds, from different places, and with different points of view. The resulting class, the College hopes, is a stimulating set of individuals with a common pursuit: education and application.

APPLICATION AND ADMISSION PROCEDURES

Early Decision: Early Decision is a plan whereby a candidate, if he is certain of his first-choice college, can attempt to resolve the problem of college admission early in the senior year. Bowdoin is in agreement with other colleges regarding the general ground rules, which are as follows:

1. When each Early Decision candidate files his formal application for admission, he must state in writing that he wishes to be considered for Early Decision and that he will enroll if admitted. The Early Decision candidate may file regular applications at other colleges, but only with the understanding that these will be withdrawn if the candidate is accepted on an Early Decision basis by his first-choice college. In other words, only one Early Decision application may be made, but other regular applications can be listed simultaneously.

2. The student's application and formal request for Early Decision must be submitted to Bowdoin by *November* 1. The earlier the completed application is received, the earlier the College can deliberate the case and respond. Decisions will be announced no later than mid-December, and some before that time.

3. A successful applicant for financial aid will be notified of the amount of his award at the time he receives his Early Decision acceptance, provided his financial aid forms are complete. Those applicants who are admitted without a decision on financial aid are free to continue other applications.

4. An Early Decision acceptance is contingent upon completion of the senior year in good standing.

5. A candidate not accepted under the Early Decision program will automatically be transferred to the regular applicant group,

and will be considered at the normal time in the spring. Failure to be admitted as an Early Decision candidate in no way prejudices one's chances for admission later. (Each year, a significant number of applicants who were deferred under Early Decision are accepted in April.) Decisions on all applications will be announced by mid-April.

Regular Admission: The following items constitute a completed admissions folder:

1. The student's application form submitted with the application fee ($15) as early as possible in the senior year. The deadline for receiving regular applications is *February* 1.
2. The secondary school report form with the school's confidential estimate of the candidate and a transcript of grades through the midyear marking period of the candidate's senior year.
3. Recommendations: Each candidate is required to submit two reference forms—from an English teacher and a second teacher, club adviser, or coach.
4. CEEB Tests: Applicants are not required to submit results of the CEEB Tests. If a student does choose to submit his test scores, the Admissions Committee will probably find them helpful in reaching a decision. The secondary school record, however, will always be considered the most important factor.
5. Visit and Interview: A visit to Bowdoin during the candidate's junior or senior year is recommended. An interview with an admissions officer is strongly encouraged but not required.

The College welcomes visitors throughout the year; however, interviews with an admissions officer should be arranged two weeks in advance. Because no interviews can be scheduled between *February* 15 and *May* 1, an applicant who desires an appointment should plan it before *February* 15. Student guides are available at the Moulton Union to conduct tours of the campus. The Admissions Office is open from 9 A.M. to 5 P.M. on weekdays and from 9 A.M. until 12 NOON on Saturdays during the academic year. During the summer it is open from 9 A.M. to 4 P.M. Monday-Friday and closed on Saturday.

Admission with Advanced Standing: Bowdoin participates in the College Entrance Examination Board Advanced Placement Program and grants both advanced standing in courses and credit toward graduation to properly qualified students. Examinations in Advanced Placement subjects are given by the CEEB in May of each year, and a student is granted placement or credit on the basis of his examination performance. A score of 3, 4, or 5 nor-

mally results in a student's being given credit for one or two semesters of college-level work in the subject; if he elects to continue that subject in college, he is given appropriate placement. An applicant should request consideration for advanced placement and credit by arranging for all Advanced Placement Test scores to be sent to the Admissions Office.

Candidates not offering Advanced Placement examinations may secure advanced placement by passing a qualifying examination at the College. Bowdoin recognizes the place of more advanced courses in secondary school and provides an opportunity for the unusually qualified student to extend the range of work that he may do in school and college. Occasionally a student may gain sufficient credit to enable him to complete his college course in fewer than eight semesters.

Transfer Students: A limited number of students from other colleges and universities will be admitted each year to upper-class standing at Bowdoin. Candidates for transfer admission should submit early in the spring transcripts of their college and school records and statements from deans or advisers. The records of transfer candidates should be of good quality in a course of study which approximates the work that would have been done at Bowdoin had they entered as freshmen. At least one full year of residence at Bowdoin is required for the degree, but transfer into the senior class is not usually granted.

Special Students: Special-student status is granted to persons who do not wish to become candidates for the degree but wish to pursue studies in regular classes. Admission is based upon maturity, seriousness of purpose, and adequacy of preparation for the work to be undertaken. No student is permitted to continue in special standing more than two years. Those who enter as special students and who later wish to become candidates for the degree must satisfy all of the regular requirements for admission to the College.

PROCEDURE FOR APPLICATION FOR FINANCIAL AID

Bowdoin is one of more than seven hundred colleges which ask candidates for financial aid to file information through the College Scholarship Service, P.O. Box 176, Princeton, N.J. 08540, or P.O. Box 1025, Berkeley, California 94701, or P.O. Box 881, Evanston, Illinois 60201. This organization has been formed to simplify scholarship procedures and to make decisions on awards

as fair as possible. Each applicant for financial aid should obtain the Parents' Confidential Statement Form from his school and request the College Scholarship Service to forward a copy of this statement to Bowdoin. *No other form is required by Bowdoin, and application for assistance is complete upon receipt of the Parents' Statement and the completed application for admission.* February 1 is the deadline for filing these applications. Recipients of financial aid are selected on the basis of their academic records and personal promise; the amount of such assistance is intended to meet the individual's need as calculated from the information in the Parents' Confidential Statement. Additional material about the program of financial aid at Bowdoin may be found on pages 52-81. Awards of financial aid are announced with the letters of admission.

All correspondence concerning admission to the College and prematriculation scholarships should be addressed to the Director of Admissions, Bowdoin College, Brunswick, Maine 04011.

Scholarships, Loans, and Financial Aid

SCHOLARSHIP grants, loans, and student employment are the principal sources of aid for Bowdoin students who need help in meeting the expenses of their education. Bowdoin believes that a student who receives financial aid as an outright grant should also expect to earn a portion of his expenses and that he and his family should assume responsibility for repayment of some part of what has been advanced to help him complete his college course. Grants will total about $765,000 in 1971-1972 and will be made to more than 40 percent of the student body. All awards are made on the basis of satisfactory academic work and financial need, which is a requisite in every case. The financial aid program is coordinated by the director of student aid, to whom all applications, except those from students not yet enrolled in college, should be directed. Prospective freshmen should submit their applications to the director of admissions.

For the past several years, more than $235,000 has been lent annually to students. Long-term loans continue to be an integral part of financial aid, supplementing scholarship grants. Long-term loans may also be made to students not receiving scholarship grants on recommendation of the director of student aid. These loans, including those made from National Defense Student Loan funds, bear no interest during undergraduate residence. Interest at 3 percent is charged; and payment over a ten-year period is called for beginning nine months after graduation or separation; or after graduate school, three years of military, Peace Corps, or Vista service, or a combination of these. National Defense Student Loans also provide for the waiver of some payments for men who become teachers. Small, short-term loans are available upon application at the Business Office.

The student employment program offers a wide variety of opportunities to undergraduates. These include direct employment by the College, employment by the fraternities, and employment by outside agencies represented on the campus or located in the community. Some jobs are assigned to supplement grants and loans, but there are other opportunities for students who are interested, able, and willing to work. Except for the assignment of a few jobs known as bursaries, special commitments for employment are not made to freshmen until after the opening of college in September.

The College participates in the Work-Study Program established under the Economic Opportunity Act of 1964 and in the Educational Opportunity Grants Program established under the Higher Education Act of 1965.

PREMATRICULATION SCHOLARSHIPS: About 100 freshmen each year receive prematriculation awards to help them meet the expenses of their first year. Recently the range of awards has extended from $400 to $4,000. As noted above, some awards are direct grants, but most include the tender of loans and bursaries. The size and nature of these awards depend upon the need demonstrated by the candidates. Application should be made to the director of admissions before February 1 of each year. A candidate will be notified of a prematriculation award at the time he is informed of the decision on his application for admission, usually about April 15.

The general basis for the award of all prematriculation scholarships is the same although there are particular qualifications in several instances which are described below. For every award, however, each candidate is judged on the basis of his academic and personal promise as well as on the degree of his financial need. In determining these, the College considers the evidence provided by the school record, the results of standardized aptitude tests, the recommendations of school authorities and others, the range and degree of the candidate's interests, and the statement of financial resources submitted on the Parents' Confidential Statement of the College Scholarship Service.

A freshman who holds a prematriculation award may be assured of continuing financial aid that meets his needs in his upper-class years if his year-end grades are such as to assure normal progress toward graduation. This will ordinarily require grades of *Pass* in all regular courses, except that in some cases one grade of *Fail* may, at the discretion of the Committee on Student Aid, be balanced by one grade of *High Honors* or two grades of *Honors*. In each upper-class year the proportion of financial aid offered as a grant will be progressively decreased, and that offered as a loan increased, except in the case of certain scholarships where the full award must be made as an outright grant.

All awards of financial aid made in anticipation of an academic year, including the freshman year, will remain in effect for the full year unless the work of the holder is markedly unsatisfactory. Awards for such students may be reduced or withdrawn for one semester. Awards may also be reduced or withdrawn for gross breach of conduct or discipline.

General Scholarships: Awards similar to prematriculation scholarships are granted to undergraduates already enrolled in college on the basis of their academic records and their financial need. Normally, these awards are made at the end of one academic year in anticipation of the next, but applications may be made in November for aid to be assigned during the spring semester on a funds available basis. Awards made for a full year are subject to the same provisions covering prematriculation awards, but those made for a single semester are not considered as setting award levels for the following year.

Bursaries and Major Employment Assignments: So far as practicable all college student jobs paying as much as $200 per year will be assigned to students of recognized need by agreement between the director of student aid, the department head concerned, and the students to be employed. Bursaries, assigned to incoming freshmen as part of their financial aid, are subject to similar regulations, whether they involve college jobs or work in fraternities.

Graduate Scholarships: These awards are made to students who have completed their work at Bowdoin and are pursuing advanced study at other institutions. Application should be made in writing to the director of student aid. They are described on pages 76-79.

U. S. Army Reserve Officers' Training Corps Scholarships: These four-year scholarships are awarded by the United States Army on a competitive basis to high school seniors. Recipients may use these scholarships at any college which will admit them and which has the ROTC program. Additionally, scholarships for one, two, and three years are awarded on a competitive basis to students already in the four-year program. The grant from the Army covers full tuition with an annual allowance for fees, books, and supplies as well as $50 a month subsistence pay. Awards are made without regard to financial need. Recipients must agree to take the Four-Year ROTC Program to earn a commission and to serve four years on active duty as an officer in the United States Army. To secure application forms for the four-year ROTC scholarship, individuals should write to the commanding general of the Army area in which they live or to the director of the ROTC program at Bowdoin College no later than October of the senior year in high school. Applications for the one-, two-, and three-year ROTC scholarship program are made during the school year upon announcement by the director of the ROTC program.

General Scholarships

The awards made as general scholarships are derived from funds provided by many generous donors, including alumni who contribute annually through the Alumni Fund. Most of them are assigned on an annual basis early in the summer by the Faculty Committee on Admissions and Student Aid, but others, especially for freshmen, are made at the end of the fall semester. The scholarships are listed alphabetically in each of two sections. Endowed scholarships are in Section I; scholarships funded annually are in Section II.

Section I: Endowed Scholarships

(As of January 31, 1971)

E. Farrington Abbott Memorial Scholarship Fund (1965) $25,821
Given by his family.
Preference, first, to students from Androscoggin County, and second, to students from Maine.

Clara Rundlett Achorn Scholarships (1932) 10,000
Given by Edgar O. Achorn 1881.
Preferably to students from Lincoln Academy, Newcastle.

Fred H. Albee Scholarship Fund (1956) 24,445
Given by Mrs. Fred H. Albee.

Louella B. Albee Scholarship (1956)
Given by Mrs. Fred H. Albee.
One-half the income of a trust fund awarded every four years.

Stanwood Alexander Scholarship (1903) 9,668
Given by DeAlva Stanwood Alexander 1870.
Preferably to students from Richmond, or for excellence in American history.

Vivian B. Allen Foundation Scholarship Fund (1970) 100,000
Given by the Vivian B. Allen Foundation.
To students from foreign countries.

Leon W. and Hazel L. Babcock Fund (1965) 21,722
Given by Leon W. Babcock 1917.
Students showing aptitude and interest in the study of the physical sciences.

Antanina Kunigonis-Marcinkevicius Bachulus Fund (1964) 17,538
Given by John Matthew Bachulus 1922.
Preference to a student of American citizenship and Lithuanian descent, or a foreign student of Lithuanian origin.

Eva D. H. Baker Scholarship (1932) 4,546
Given by Guy P. Estes 1909.
Preferably to a Christian Scientist.

Dennis Milliken Bangs Scholarship (1918) 4,829
Given by Mrs. Hadassah J. Bangs.

W. S. Bass '96 and J. R. Bass '00 Memorial Scholarship Fund (1965) 12,553
Given by members of the Bass family.
Students from Wilton, other towns in Franklin County, or from Maine.

Richard C. Bechtel Scholarship Fund (1967) 15,230
Given by Richard C. Bechtel 1936.
Preference to students showing aptitude and interest in the field of mathematics.

Charles R. and Mary D. Bennett Scholarship Fund (1967) 5,100
Given by Mrs. Charles R. Bennett.
Students from Yarmouth, from North Yarmouth Academy or Yarmouth High School, or from Cumberland County.

Freeman E. Bennett and Ella M. Bennett Fund (1950) 33,180
Given by Mrs. Freeman E. Bennett.

Louis Bernstein Scholarship Fund (1970) 10,000
Given by Louis Bernstein 1922.

Harold Lee Berry Scholarship Fund (1959) 14,887
Given by Harold Lee Berry 1901.

Charles G. Berwind Scholarship Fund (1966) 24,636
Given by Charles G. Berwind and others.
Preference to students who have been associated with the program of the Big Brothers of America, Inc.

Beverly Scholarship (1923) 2,654
Given by the Beverly (Mass.) Men's Singing Club.
Preference to students from Beverly, Massachusetts.

William Bingham 2nd Scholarship Fund (1956) 25,000
Given by the Trustees, Betterment Fund under the will of William Bingham 2nd.
Students from Bethel, other towns in Oxford County, or from Maine.

Adriel U. Bird Scholarship Fund (1953) 105,000
Given by a friend of Adriel U. Bird 1916.
Students from New England graduated from New England schools.

Blake Scholarship (1882) 3,885
Given by Mrs. Noah Woods.

George Franklin Bourne Scholarship (1887) 970
Given by Mrs. Narcissa Sewall Bourne.

James Bowdoin Scholarship Fund (1969) 30,000
Given by Clara Bowdoin Winthrop.
Preference to students who are residents of Maine.

James Bowdoin Student Aid Fund (1962) 2,310
Given by several persons.

George W. R. Bowie Fund (1965) 3,000
Given by William Roland Bowie.
A needy Protestant student, preferably a country boy of American ancestry from Androscoggin County.

Robert W. Boyd Scholarship Fund (1968) 7,050
Given by his friends.

John Hall and George Monroe Brett Fund (1957) 47,735
Given by Mrs. John Hall Brett.

Geraldine Brewster Scholarship Endowment Fund (1957) 4,288
Given by Geraldine Brewster.

Stuart F. Brown Scholarship Fund (1968) 19,362
Given by Mrs. Stuart F. Brown and family.
An annual scholarship of $1,000.
Preference to students from Whitinsville and Uxbridge or other towns and cities in Worcester County, Massachusetts.

William Buck Scholarship Fund (1947) 1,500
Given by Anna S. Buck.
A premedical student, preferably from Piscataquis County.

George W. Burpee Scholarship Fund (1968) 6,580
Given by his friends.

Moses M. Butler Scholarship Fund (1903) 9,545
Given by Mrs. Moses M. Butler.

Buxton Scholarship Fund (1875) 12,744
Given by Cyrus Woodman 1836, Frank H. L. Hargraves 1916, and Gordon S. Hargraves 1919.
Preference to natives and residents of Buxton.

Florence Mitchell Call Scholarship (1927) 1,500
Given by Norman Call 1869.

Sylvester B. Carter Scholarship (1918) 2,726
Given by Sylvester B. Carter 1866.
Residents of Massachusetts.

Warren B. Catlin Fund (1969)
Given by Warren B. Catlin.
$35,000 of the annual income of a fund of $1,721,054 for financial assistance to students in the form of loans and/or grants.

Justus Charles Fund (1875) 9,595
Given by Justus Charles.

Henry T. Cheever Scholarship (1897) 486
Given by Henry T. Cheever 1834.

Hugh J. Chisholm Scholarship (1915) 69,649
Given by Mrs. Hugh J. Chisholm and Hugh J. Chisholm, Jr.

Claff Scholarship Fund (1963) 16,585
Given by the Claff Charitable Foundation.
No award until principal reaches $25,000.

Samuel Clark, Jr., Scholarship Fund (1941) 12,500
Given by Samuel W. Clark, Jr.
Students serving as assistants, preferably from Portland.

Class of 1872 Scholarship (1903) 2,444
Given by the Class of 1872.

Class of 1881 Scholarship (1907) 3,947
Given by the Class of 1881.

Class of 1892 Scholarship Fund (1918) 1,447
Given by the Class of 1892.

Class of 1896 Memorial Scholarship Fund (1917) 5,800
Given by the Class of 1896.

Class of 1903 Scholarship (1914) 20,691
Given by the Class of 1903.
Preference to descendants of members of the Class.

1916 Class Fund (1941) 5,507
Given by the Class of 1916.

Class of 1919 Scholarship Fund (1970) 31,104
Given by the Class of 1919.
Preference to descendants of members of the Class.

Class of 1920 Scholarship Fund (1938) 2,771
Given by the Class of 1920.

Class of 1926 Fund (1951) 39,589
Given by the Class of 1926.

Class of 1929 Memorial Scholarship Fund (1954) 50,858
Given by the Class of 1929.
Preference to descendants of members of the Class.

Class of 1930 Scholarship Fund (1955) 32,271
Given by the Class of 1930.

Class of 1931 Memorial Fund (1956) 21,757
Given by the Class of 1931.

Class of 1932 Scholarship Fund (1957) 20,613
Given by the Class of 1932.

Class of 1933 Memorial Fund (1958) 14,430
Given by the Class of 1933.
Preference to descendants of members of the Class.

Class of 1936 Scholarship Fund (1961) 32,685
Given by the Class of 1936.

Class of 1940 Memorial (1965) 23,084
Given by the Class of 1940.
Preference to students of meritorious scholastic achievement who are athletically adept.

Class of 1942 Memorial Scholarship Fund (1968) 37,343
Given by the Class of 1942.
Two scholarships of one-half the annual income each to freshmen, one to a student of meritorious achievement who is athletically adept and one to a student of meritorious achievement who is adept in the study of classics, music, or art.

1944 Class Fund (1944) 32,891
Given by the Class of 1944.

James F. Claverie Memorial Scholarship Fund (1967) 5,556
Given by Mrs. Dorothy A. Claverie.
Preference to descendants of James F. Claverie 1910.

Mary Cleaves Scholarship Fund (1872) 3,012
Given by Mary Cleaves.

Philip O. and Alice Meyer Coffin Scholarship Fund (1967) 10,035
Given by Alice M. Coffin.
Preference to students who graduated from the Brunswick High School.

Alfred E. Cohan Scholarship Fund (1970) 10,000
Given by Hannah Seligman.
Students who have an interest in the creative arts.

Sanford Burton Comery Fund (1936) 1,000
Given by the Belmont High School and friends.
Preferably to a student from the Belmont, Massachusetts, High School, or the Thomaston, Maine, High School.

Albert D. and Madelyn Dyer Conley Scholarship Fund (1968) 12,102
Given by Mr. and Mrs. Albert D. Conley in memory of John Small Dyer, Medical 1904.
Preference to physically or socially handicapped students from the State of Maine.

Connecticut Alumni Scholarship Fund (1955) 11,160
Given by the Bowdoin Alumni Association of Connecticut.

Carleton S. Connor Memorial Fund (1963) 32,235
Given by his friends and relatives.
Preference to students from Connecticut.

E. C. Converse Scholarship Fund (1922) 51,376
Given by Edmund Cogswell Converse.

Leon T. and Florence Kennedy Conway Scholarship Fund (1967) 30,200
Given by Leon T. Conway 1911 and Mrs. Conway.
Preference to students from Hackensack and other New Jersey communities.

Harry S. and Jane B. Coombs Fund (1962) 2,000
Given by Mrs. Harry S. Coombs.

Else H. Copeland Scholarship Fund (1955) 30,000
Given by Melvin Thomas Copeland 1906.

Manton Copeland Scholarship Fund (1960) 24,346
Given by friends of Professor Copeland.
Preference to juniors and seniors majoring in biology.

Cram Memorial Scholarship (1872) 973
Given by Marshall Cram.

Ephraim Chamberlain Cummings Scholarships (1914) 2,914
Given by Mrs. Ephraim C. Cummings.

Charles M. Cumston Scholarship (1902) 24,176
Given by Charles M. Cumston 1843.
Preferably to graduates of the English High School of Boston.

Mary Decrow Dana Scholarship Fund (1967) 25,979
Given by Luther Dana 1903.

Dr. Murray Snell Danforth Fund (1956) 10,000
Given by Agnes H. Danforth.
Legal residents of Maine preparing for the medical or related professions.

Deane Scholarship in English Literature (1924) 993
Given by Mrs. Sarah M. B. Deane.
A deserving student showing particular ability in English literature.

Benjamin Delano Scholarship (1877) 973
Given by Benjamin Delano.

Dodge Fund (1959) 20,000
Given by Leon A. Dodge 1913.
Most deserving student who graduated from Lincoln Academy, Newcastle, or if none, to students from Lincoln County.

John C. Dodge Scholarship (1872) 5,413
Given by John C. Dodge 1834 and his family.

James L. and Harriet I. Doherty Scholarship (1931) 5,000
Given by Mrs. James L. Doherty.

Frank Newman Drew Scholarship (1926) 2,000
Given by Franklin M. Drew 1858.

Edward A. Drummond Scholarships (1914) 5,050
Given by Edward A. Drummond.
Preferably to students from Bristol.

Joseph Blake and Katharine Randall Drummond Scholarship Fund (1966) 14,500
Given by Mrs. Joseph B. Drummond.
Preference to students from Cumberland County.

Charles Dummer Scholarships (1874) 6,166
Given by Mrs. Charles Dummer.

Robert H. Dunlap Scholarship (1970) 78,739
Given by Mrs. Robert H. Dunlap.
For qualified French students to study for a year at Bowdoin or for qualified Bowdoin students to study for a year in France.

Jessie Ball du Pont Scholarship Fund (1966) 417,969
Given by Mrs. Alfred I. du Pont.

Emma Jane Eaton Scholarship (1944) 10,000
Given by Mrs. Emma Jane Eaton.
Students who are graduates of the Calais High School or natives of Washington County.

Ayres Mason Edwards Scholarships (1937) 5,375
Given by Mrs. Ayres Mason Edwards.

Robert Seaver Edwards Scholarship Fund (1965) 10,000
Given by an anonymous donor.

John F. Eliot Scholarship (1932) 35,676
Given by John F. Eliot 1873 and Mrs. Eliot.

And Emerson Scholarships (1875) 7,245
Given by And Emerson.

Emery Scholarship (1933) 12,073
Given by Mrs. Anne Crosby Emery Allinson.
For an individual boy to be selected by the dean of the College.

William Engel Fund (1936) 21,692
Given by Mrs. William Engel.

Dana Estes Scholarship (1912) 2,460
Given by Dana Estes.

Guy Parkhurst Estes Scholarships (1958) 100,000
Given by Guy Parkhurst Estes 1909.

Lewis Darenydd Evans II Scholarship Fund (1950) 142,796
Given by Frank C. Evans 1910 and Mrs. Evans.
As scholarships or loans to students from the State of Maine.

Fagone Scholarship Fund (1969) 1,902
Given by Mrs. Helen Bacon Fagone and friends in memory of Francis A. Fagone of the Class of 1922.
Preference to a student from Portland High School or Deering High School in Portland, Maine, who intends to pursue a medical course of study or one in the natural sciences.

George B. Farnsworth-Thomas P. and Agnes J. Hanley Scholarship Fund (1966) 10,388
Given by Miss Margaret A. Hanley and Daniel F. Hanley 1939.
Preference to juniors and seniors who are premedical students.

Hugh F. Farrington Scholarship Fund (1947) 200
Given by Mrs. Hugh F. Farrington.
A member of the Phi Delta Psi Fraternity to be awarded at the end of his junior year.

G. W. Field Fund (1881) 4,066
Given by George W. Field 1837.
Preference, first, to students or graduates of the Bangor Theological Seminary and, second, to graduates of the Bangor High School.

Herbert T. Field Scholarship Fund (1967) 41,094
Given by Caroline F. Dunton.
Preference to students from Belfast and Waldo County, Maine.

Edward Files Scholarship Fund (1960) 3,600
Given by Charles Edward Files 1908.
Preference to a student from Cornish or a nearby town.

Joseph N. Fiske Scholarship (1896) 973
Given by Mrs. Joseph N. Fiske.

John P. Fitch Scholarship Fund (1968) 23,031
Given by Mrs. John P. Fitch.

Dr. Ernest B. Folsom Scholarship Fund (1967) 58,028
Given by Effie I. Jordan.

Wm. E. Foster Scholarship Fund (1968) 100,000
Given by Mrs. Alta Whitehouse Foster.
Preference to students intending to pursue a career in journalism.

Samuel Fraser Scholarship Fund (1969) 3,000
Given by Samuel Fraser 1916.
Students from Masardis, Maine.

Benjamin Apthorp Gould Fuller, of the Class of 1839, Scholarship (1916) 1,242
Given by an anonymous donor.
Preference to a student from Augusta.

George Gannett Fund (1913) 6,289
Given by Mrs. George Gannett.

General Electric College Bowl Scholarship Fund (1964) 14,081
Given by the General Electric Company and others.

William Little Gerrish Scholarship (1890) 973
Given by Frederic Henry Gerrish 1866.

Charles H. Gilman Scholarship (1924) 1,000
Given by Mrs. Charles H. Gilman.

Given Foundation Scholarship Fund (1960) 100,000
Given by the Irene Heinz Given and John LaPorte Given Foundation, Inc.

Dr. Edwin W. Gould Scholarship (1936) 1,000
Given by Edwin W. Gould, Medical 1887.

Joseph and Lester Gumbel Scholarship Fund (1959) 20,000
Given by Lester Gumbel 1906.

Henry W. and Anna E. Hale Scholarship Fund (1945) 15,154
Given by an anonymous donor.

John P. Hale Scholarship (1916) 3,780
Given by Mrs. John P. Hale and Mrs. Elizabeth Hale Jacques.

Hall-Mercer Scholarship Fund (1940) 74,726
Given by the Reverend Alexander G. Mercer.

John F. Hartley Scholarship (1915) 13,988
Given by Frank Hartley.
Students or graduates intending to enter the profession of the law.

Moses Mason Hastings Fund (1933) 8,753
Given by Mrs. Fred H. Dodge.
Preferably to students from Bethel and Bangor.

Hasty Scholarship Fund (1912) 1,000
Given by Almira K. Hasty.
Preferably to students from Portland or Cape Elizabeth.

John W. and Florence S. Higgins Scholarship Fund (1966) 296,704
Given by John W. Higgins 1902 and Mrs. Higgins.
Preference to students from Starks, Skowhegan, Somerset County, and Maine, in that order.

Ernest Laurence Hill Scholarship Fund (1960) 121,894
Given by Mrs. Annette S. Hill.

Linnie P. Hills Fund (1963) 9,809
Given by Mrs. Linnie P. Hills.

Howe Scholarship (1931) 44,167
Given by Lucien Howe 1870.
Preferably to students intending to study ophthalmology or allied subjects.

Caroline Huntress Scholarship Fund (1943) 979
Given by Roderick L. Huntress 1927.

Roscoe H. Hupper Scholarship Fund (1968) 10,992
Given by Mrs. Roscoe H. Hupper.
Preference to students who, first, are graduates of Hebron Academy or, second, to students from the State of Maine.

Guy H. Hutchins Scholarship (1943) 1,000
Given by Guy H. Hutchins, Medical 1899.
A student majoring in biology or chemistry.

Winfield S. Hutchinson Scholarships (1959) 33,416
Given by Mrs. Winfield S. Hutchinson.

William Dunning and Mary Elliott Ireland Scholarship Fund (1968) 2,193
Given by William D. Ireland, Jr., 1949.
Preference to a student who has had some connection with the College in the past.

Ireson-Pickard Scholarship (1960) 5,000
Given by Jennie E. Ireson.

Howard Rollin Ives Memorial Scholarship (1917) 38,038
Given by friends of Howard Rollin Ives 1898.

Henry Whiting Jarvis Scholarship Fund (1954) 1,000
Given by Mrs. Eleanor Jarvis Newman.

Alfred Johnson Scholarships (1870) 2,913
Given by Alfred Waldo Johnson 1845.

John Johnston Fund (1938) 25,000
Given by Albert W. Johnston.

Sarah Maude Kaemmerling Scholarship and Loan Fund (1959) 106,366
Given by Mrs. Sarah Maude Kaemmerling.

Kappa Scholarship Fund (1947) 5,387
Given by Charles S. F. Lincoln 1891.
To a member of the Psi Upsilon Fraternity.

Frederick L. Kateon Scholarship (1971) 15,000
Given by Frederick L. Kateon.
One-third to a student majoring in foreign languages, one-third to a student tending toward public life or the law, and one-third to a student pursuing premedical courses.

Dean Nathaniel C. Kendrick Scholarship Fund (1970) 7,275
Given by his family and friends.

Frank H. Kidder Scholarship (1929) 21,333
Given by Frank H. Kidder.
Preference to graduates of Thayer Academy or students from Massachusetts.

Monte Kimball Scholarship Fund (1970) 31,581
Given by W. Montgomery Kimball 1923.
Preference to students from Henderson County, North Carolina.

Bowdoin Martin Luther King, Jr., Scholarship (1971) 1,405
Given by various donors.

Charles Potter Kling Fund (1934) 50,000
Given by Charles P. Kling.
Provides tuition and books for students of colonial or revolutionary ancestry.

George B. Knox Fund (1962) 683,372
Given by George B. Knox 1929 and Mrs. Knox.
Preference, first, to students from California and, second, to students from the Pacific coast as scholarships or financial aid.

Samuel Appleton Ladd, Jr., Scholarship Fund (1969) 10,010
Given by the Class of 1929.
Juniors and/or seniors interested in pursuing a business career.

Frederic Evans Lally Scholarship (1902) 486
Given by Frederic Evans Lally 1882.

Joseph Lambert Fund (1896) 970
Given by Mrs. Ann E. Lambert.

Donovan D. Lancaster Scholarship (1969) 6,353
Given by members of Alpha Rho Chapter, Kappa Sigma Fraternity.
Preference to an active member of Alpha Kappa Sigma Fraternity.

John V. Lane Scholarship (1942) 5,000
Given by Susan H. Lane.

Lawrence Foundation (1847) 6,220
Given by Mrs. Amos Lawrence.
Preference to graduates of Lawrence Academy.

Lawrence Scholarship (1926) 25,025
Given by Mrs. Samuel C. Lawrence.
Students residing in the State of Maine.

Richard Almy Lee Scholarship (1910) 2,000
Given by Mrs. Elizabeth Lee Eliot and Miss Sylvia Lee.
Preference to a member of the Beta Theta Pi Fraternity.

Edward K. Leighton Scholarships (1953)
Given by Edward K. Leighton 1901.
A part of the income of the Edward K. Leighton Fund.
Students residing in Knox County.

Leon Leighton and Margaret B. Leighton Scholarship Fund (1944) 10,000
Given by Leon Leighton, Jr., 1919.
Preference to descendants of alumni of Bowdoin College.

Frank E. and Nellie V. Leslie Scholarship Fund (1967) 5,000
Given by Nellie V. Leslie.
Preference to students from Maine or Massachusetts pursuing a premedical course.

Weston Lewis Scholarship (1919) 15,000
Given by Mrs. Weston Lewis.

Charles F. Libby Scholarship (1915) 3,270
Given by Charles F. Libby 1864.
A student and resident of Portland, preferably pursuing a classical course.

Lucien P. Libby Memorial Scholarship (1971) 15,000
Given by Mrs. Lucien P. Libby.
Preference to boys from Portland, Maine.

Amos D. Lockwood Scholarship (1888) 1,103
Given by Mrs. Sarah F. Lockwood.

George C. Lovell Scholarship (1917) 1,974
Given by Mrs. George C. Lovell.
Preference to a student from Richmond.

Lubec Scholarship Fund (1961) 50,000
Given by Sumner T. Pike 1913.
Preference to current or former residents, or descendants of residents, of Lubec, with second preference to students similarly associated with other communities in Washington County.

Moses R. Ludwig and Albert F. Thomas Scholarships (1884) 1,017
Given by Mrs. Moses R. Ludwig.

Earle Howard Lyford Scholarship (1956) 2,000
Given by Mrs. Earle Howard Lyford.

Frederick J. and Hope M. Lynch Fund (1968) 20,000
Given by Hope M. Lynch.
Preference to students born and residing in Maine.

Louis Blalock McCarthy Scholarship Fund (1966) 15,730
Given by his family and friends.

Scott S. McCune Scholarship Fund (1963) 25,000
Given by Mr. and Mrs. George W. McCune, Jr., George B. Knox 1929, and Mrs. Knox.
Preference to students from Idaho and Utah.

S. Forbush McGarry, Jr., Scholarship Fund (1941) 23,106
Given by S. Forbush McGarry, Jr., 1936 and Caroline McGarry.

Greenwood H. McKay Fund (1965) 10,000
Given by Roland L. McKay, Medical 1908.
Preference to students from Augusta.

Max V. MacKinnon Scholarship Fund (1968) 1,028
Given by Mrs. Louise McCurdy MacKinnon.

George Clifton Mahoney Fund (1939) 8,310
Given by George C. Mahoney 1891.

William N. Mann Scholarship Fund (1969) 2,000
Given by William N. Mann.
Preference to residents of Yarmouth, Maine, or second, to graduates of North Yarmouth Academy.

Richard S. Mason Scholarships (1958)
Given by Jane Graham Mason.
One-third of the income of a fund of $40,000.

Charles P. Mattocks Scholarship (1955) 2,000
Given by Mrs. Mary M. Bodge.

Francis LeBaron Mayhew Scholarship Fund (1922) 6,333
Given by Mrs. Francis LeBaron Mayhew.

James Means Scholarship (1885) 2,040
Given by William G. Means.

Joseph E. Merrill Scholarships (1909)
Given by Joseph E. Merrill 1854.
The sum of $4,000 annually from the income of this fund.
To American-born students, preferably those born in Maine.

Edward F. Moody Scholarship (1912) 5,475
Given by Inez A. Blanchard and others.
To a meritorious student for proficiency in chemistry.

Jennie L. Moody Fund (1947) 20,000
Given by William A. Moody 1882.

Hoyt A. Moore Scholarship Fund (1954) 100,000
Given by Hoyt A. Moore 1895.
For Maine boys, preferably from Ellsworth and other places in Hancock County.

Malcolm E. Morrell Scholarship Fund (1967) 10,386
Given by his friends.
To a member of the junior or senior class.

Freedom Moulton Scholarship Fund (1933) 10,395
Given by Augustus F. Moulton 1873.

New Hampshire Charitable Fund Scholarship (1964) 30,000
Given by the New Hampshire Charitable Fund and New Hampshire Alumni.
A student residing in New Hampshire.

Edward Henry Newbegin Scholarship (1909) 1,456
Given by Henry Newbegin 1857.

Guilford S. Newcomb Scholarship (1939) 1,000
Given by Edward R. Stearns 1889.
A worthy student from Warren.

Crosby Stuart Noyes Scholarships (1897) 3,885
Given by Crosby Stuart Noyes.
Preference to natives or residents of Minot.

O'Brien Scholarship (1935) 5,000
Given by Mrs. Harriet O'Brien Walker.
Preferably to students from Machias.

Osborne-Fawcett Scholarship Fund (1967) 20,000
Given by Mrs. D. C. Osborne.
Preference to students from the New York City-Long Island, N.Y., area.

Packard Scholarship (1905) 2,000
Given by Alpheus S. Packard, Jr., 1861.
A student in botany, geology, or zoology.

George Winfield Parsons Scholarship (1956) 2,500
Given by Harry S. Parsons, Medical 1891.
To a student from Brunswick.

Lindley F. and Mabelle Foss Parsons Scholarship Fund (1969) 1,225
Given by Marcus L. Parsons.
Preference to students from Somerset County, Maine, or second, to students from rural Maine.

John H. Payne Scholarship (1947) 9,500
Given by John H. Payne 1876.
Preferably students born and brought up in the State of Maine.

John H. and Ernestine A. Payne Scholarship Fund (1947) 168,895
Given by Mrs. John H. Payne.
Preferably students born and brought up in the State of Maine.

Payson Scholarship (1935) 193,887
Given by Mrs. Charles H. Payson.

Roland Marcy Peck Memorial (1917) 973
Given by Anna Aurilla Peck.

Woolf Peirez Scholarship Fund (1958) 33,690
Given by Louis A. Peirez.
Students from New York City or Nassau County, preferably those who are foreign born or are of foreign-born parents.

Samuel H. and Sarah Allen Perkins Scholarship Fund (1947) 1,007
Given by Dr. Anne E. Perkins and Dr. Effie A. Stevenson.

Arthur Lincoln Perry Scholarship (1936) 5,000
Given by Mary Adelia Perry.

Trueman S. Perry Scholarship (1939) 882
Given by Trueman S. Perry 1850.
A student looking to the Evangelical ministry as a profession.

Margaret M. Pickard Scholarship Fund (1954) 35,000
Given by John C. Pickard 1922.

Pierce Scholarship (1878) 1,020
Given by Mrs. Lydia Pierce.

Stanley Plummer Scholarship (1920) 2,016
Given by Stanley Plummer 1867.
Preference to students born in Dexter.

Alton S. Pope Scholarship (1970) 1,175
Given by Mrs. Alton S. Pope and Philip H. Pope.
Preference to graduates of Cony High School, Augusta, Maine.

Potter Scholarship (1950) 52,500
Given by Caroline N. Potter.

Walter Averill Powers 1906 Scholarship Fund (1963) 10,062
Given by Ralph A. Powers 1913.
A student residing in the State of Maine.

John Finzer Presnell, Jr., Scholarship Fund (1947) 1,000
Given by Mr. and Mrs. John F. Presnell.
A student of high Christian principles.

C. Hamilton Preston, Class of 1902, Scholarship (1955) 2,000
Given by C. Hamilton Preston 1902.

Annie E. Purinton Scholarship (1908) 5,505
Given by Mrs. D. Webster King.
Preference to a Topsham or Brunswick boy.

Henry Brewer Quinby Scholarship Fund (1930) 43,000
Given by Mrs. Gurdon Maynard.
Preference to students from Maine, of American ancestry on both sides.

Henry Cole Quinby Scholarship (1962) 134,970
Given by Florence C. Quinby.
Preference to students from Kents Hill School.

Returned Scholarships (1933) 8,382
Given by various persons.

C. Earle Richardson and Ethel M. Richardson Fund (1962) 85,000
Given by C. Earle Richardson 1909.
Preference to students from Maine.

Flora T. Riedy Fund (1965) 15,000
Given by Flora T. Riedy.
As scholarships or loans to students.

Rodney E. Ross 1910 Scholarship Fund (1965) 25,841
Given by Rodney E. Ross 1910.

Walter L. Sanborn Oxford County Scholarship Fund (1948) 19,400
Given by Walter L. Sanborn 1901.
Residents of Oxford County, preferably from Norway and Paris.

Mary L. Savage Memorial Scholarship (1872) 1,068
Given by William T. Savage 1833.

Vernon and James Segal Fund (1966) 1,200
Given by Vernon L. Segal 1943 and James S. Segal 1950.
As a scholarship or loans to students.

Stephen Sewall Scholarship (1873) 1,068
Given by Stephen Sewall.

William B. Sewall Scholarship (1870) 1,129
Given by Mrs. William B. Sewall.

Charles Burnham Shackford Scholarship Fund (1963) 10,000
Given by Martha Hale Shackford.
A student or students studying in the humanities.

Charles Wells Shaw Scholarship (1942) 1,000
Given by Mrs. William Curtis Merryman.
Preference to residents of Bath or Brunswick.

Shepley Scholarship (1871) 973
Given by Ether Shepley.

Shumway Scholarship (1959) 92,449
Given by the family of Sherman N. Shumway 1917.
Students giving evidence of interest and ability in accomplishing leadership in campus activities and citizenship.

Wayne Sibley Scholarship (1956) 35,150
Given by George I. Alden Trust and his family.
Preferably to a student from Worcester County, Massachusetts.

Freeman H. and Anne E. Smith Scholarships (1934) 2,000
Given by Mrs. Cora A. Spaulding.
To two students preferably from North Haven, Vinalhaven, or Rockland.

Joseph W. Spaulding Fund (1926) 2,500
Given by Mary C. Spaulding.
To a member of the freshman class.

Ellis Spear Scholarship (1919) 11,006
Given by Ellis Spear 1858.

William E. Spear Scholarship Fund (1924) 1,195
Given by Mrs. William E. Spear.

John G. Stetson '54 Fund (1954) 58,975
Given by Marian Stetson.
Preference to boys from Lincoln County.

William Law Symonds Scholarship (1902) 3,367
Given by his family.
Preference to a student showing tendency to excellence in literature.

Jane Tappan Scholarship Fund (1956) 7,000
Given by Mrs. Margaret Tappan Shorey.

W. W. Thomas Scholarship (1875) 5,828
Given by William Widgery Thomas 1860.

Earle S. Thompson Scholarship Fund (1961) 165,331
Given by Earle S. Thompson 1914 and Bell McKerlie Watts.
Preference, first, to graduates of high schools in Sagadahoc County or whose homes are in that county and, second, to those resident in the State of Maine.

Frederic Erle Thornlay Tillotson Scholarship Fund (1962) 12,741
Given by his friends.
A freshman interested and talented in music.

Marvin Tracey Memorial Scholarship Fund (1965) 2,518
Given by Mrs. Dorothy Simon.

Hiram Tuell Fund (1946) 500
Given by Harriet E. and Anne K. Tuell.

21 Appleton Hall Scholarship (1940) 3,000
Given by its former occupants.

Walker Scholarships (1935) 25,000
Given by Annetta O'Brien Walker.

Genevieve Warren Memorial Scholarship Fund (1967) 14,035
Given by Herbert E. Warren 1910.

John Prescott Webber, Jr., Scholarship (1902) 2,654
Given by John P. Webber.

George Webster Scholarship (1947) 3,000
Given by Mary L. Webster.

Arthur D. and Francis J. Welch Scholarship Fund (1967) 213,075
Given by Mr. and Mrs. Edward P. Morgan, Vincent B. Welch 1938, and Mrs. Welch.
Preference to academically talented students of high character, with leadership potential and athletic proficiency, and from outside New England.

Wentworth Scholarship Fund (1937) 1,000
Given by Walter V. Wentworth 1886.

Ellen J. Whitmore Scholarship (1903) 1,943
Given by Ellen J. Whitmore.

Huldah Whitmore Scholarships (1887) 4,856
Given by William G. Barrows 1839.

Nathaniel McLellan Whitmore and George Sidney Whitmore Scholarships (1887) 2,096
Given by Mrs. Mary J. Whitmore.

Frederick W. and Elizabeth M. Willey Scholarship Fund (1963) 8,929
Given by Frederick W. Willey 1917 and Mrs. Willey.

Roliston G. Woodbury Scholarship Fund (1964) 15,533
Given by his friends.

Richard Woodhull Scholarship (1912) 9,964
Given by Mrs. Mary E. W. Perry.
Preference to the descendants of the Reverend Richard Woodhull.

Cyrus Woodman Scholarships (1903) 9,387
Given by Mary Woodman.

Paul L. Woodworth Scholarship Fund (1970) 1,000
Given by Madeline P. Woodworth.
Preference to students from Fairfield, Somerset County, and Maine, in that order.

Fountain Livingston Young and Martha Higgins Young Scholarship Fund (1964) 22,922
Given by Paul C. Young 1918 and John G. Young 1921.
Preference to descendants of Fountain and Martha Young, or to residents of Texas.

Louis J. Zamanis Scholarship Fund (1961) 8,000
Given by Mrs. Louis J. Zamanis.

Section II: Scholarships Funded Annually

(As of January 31, 1971)

Alumni Fund Scholarships
Given by the Directors of the Alumni Fund.
A portion of the receipts of the Alumni Fund, to provide scholarships for entering freshmen. These awards are in varying amounts depending on the financial status of each candidate; selections are made by the Faculty Committee on Admissions and Student Aid.

George F. Baker Scholarships
Given by the George F. Baker Trust.
Awarded annually to three or four young men who give promise of leadership in American life. The specific amount of each award depends on the need of the individual and may be as much as $2,500. The awards are renewable throughout the recipients' Bowdoin careers, subject to continued need and effective performance. No restrictions to any particular field or career, although there is special interest in those aiming at careers in business as the start, at least, of their life work.

Henry Francis Barrows Scholarship
Given by Fanny Barrows Reed.
One or more scholarships from a trust fund, for Protestant students.

Bath Iron Works Corporation Scholarship
Given by the Bath Iron Works Corporation.
An annual gift of $1,000, restricted to an upperclassman who is the son of a Bath Iron Works Corporation employee, a resident of Bath, or a resident of the State of Maine.

Bowdoin Club of Boston Scholarship
Given by the Bowdoin Club of Boston.
An annual gift for an enrolled student from the Boston area.

Bowdoin Fathers Association Scholarship
Given by the Directors of the Bowdoin Fathers Association.
An award, usually equal to tuition, to a deserving candidate from outside New England. Selection is made by a committee composed of the dean of the College, the director of admissions, and a member of the Faculty Committee on Admissions and Student Aid.

Chi Psi Scholarship
Given by the Chi Psi Fraternity.
$200 annually, under certain circumstances.

General Motors Scholarships
Given by the General Motors Corporation.

Gillies-Rust Scholarship
Given by Mr. and Mrs. William B. Gillies, Jr., and The Rust Foundation.
An annual gift of $500.

Abraham S. Levey and Fannie B. Levey Foundation Scholarships
Given by The Second Abraham S. and Fannie B. Levey Foundation.
An annual gift of $500.

Agnes M. Lindsay Scholarships
Given by Agnes M. Lindsay Trust.
An annual gift of $8,000. Preference for students from rural New England.

Abby Page Scholarships
Given by Harvey Dow Gibson 1902.
Two scholarships of $250 each to two boys of each graduating class in Fryeburg Academy, to be selected by the trustees of the academy.

Presser Foundation Scholarship
Given by the Presser Foundation.
An annual gift of $400 with preference to those students who are preparing to become teachers of music.

Procter & Gamble Scholarships

Given by the Procter & Gamble Fund.

Awarded by the College, these grants provide tuition and an allowance for fees, books, and supplies, plus an annual grant of $600 to the College. Awards are made on the basis of financial need.

Alfred P. Sloan National Scholarships

Given by the Alfred P. Sloan Foundation, Inc.

Awarded by the College, the stipends may range to a maximum of $2,500. Although the foundation prefers to have economic need disregarded altogether as a criterion in the selection of candidates, it recognizes this would probably be impracticable. The College receives an additional grant for each scholarship recipient who is enrolled.

Hattie M. Strong Foundation Scholarship Fund in Memory of Justice Harold Hitz Burton

Given by the Hattie M. Strong Foundation.

An annual gift of $4,000.

Graduate Scholarships: Arts and Sciences

Applications for graduate scholarships should be made in writing to the director of student aid before May 15, 1972.

Class of 1922 Graduate Scholarship Fund: A fund of $32,157 from an anonymous donor honoring the members of the Class of 1922, living and deceased. Ninety percent of the income from the Fund is to be awarded to a deserving member of the graduating class to help defray the expenses of graduate work designed to assist him in preparing for a career in teaching at either the college or the secondary school level. (1965)

Charles Carroll Everett Scholarship: A fund of $13,993 bequeathed by Miss Mildred Everett in memory of her father, Charles Carroll Everett, D.D., of the Class of 1850, the net income of which is given to that graduate of Bowdoin College whom the president and Faculty shall deem the best qualified to take a postgraduate course in either this or some other country. (1904)

Timothy M. Hayes Fund: A fund of $2,501 given by Timothy and Linn Hayes for support of postgraduate studies in the social sciences, i.e., those branches of knowledge which deal with the institutions and functioning of human society and with the interpersonal relationships of individuals as members of society. (1970)

Guy Charles Howard Scholarship: A fund of $21,155 bequeathed to the College by Miss Ethel L. Howard in memory of

her brother, Guy Charles Howard, of the Class of 1898, the income of which is to be used to enable "some qualified student to take a postgraduate course in this or some other country, such student to be designated by the Faculty." (1958)

Henry W. Longfellow Graduate Scholarship: A fund of $10,058 given by the daughters of Henry W. Longfellow, of the Class of 1825—Miss Alice M. Longfellow, Mrs. Edith L. Dana, and Mrs. Annie L. Thorpe—for a graduate scholarship "that would enable a student, after graduation, to pursue graduate work in some other college, or abroad if considered desirable; the work to be done in English, or general literature, and the field to be as large as possible—Belles Lettres in a wide sense. The student to be selected should be one not merely proficient in some specialty, or with high marks, but with real ability in the subject and capable of profiting by the advanced work, and developing in the best way." (1907)

The Wilmot Brookings Mitchell Graduate Scholarship: An award of $1,000 from a fund established by Hugh A. Mitchell, of the Class of 1919, "to honor the memory of my father and his love for Bowdoin." Professor Mitchell was a member of the Class of 1890 and from 1893 to 1939 Edward Little Professor of Rhetoric and Oratory. The award is made by the president upon recommendation of a committee composed of the three senior professors of the Department of English "to a member of each graduating class who has majored in English and intends to teach English, the winning candidate to be selected on the basis of character as well as superior ability and talent for teaching." The award is to be used to help defray the costs of graduate work in a leading university in this country or England. (1965)

Galen C. Moses Graduate Scholarship: A fund of $5,110 bequeathed by Emma H. Moses in memory of her husband, a member of the Class of 1856, the income "to be awarded and paid to the student most proficient in any natural science during his undergraduate course, who shall actually pursue a postgraduate course in such science at any recognized college or university; said income to be paid to such student for a period not exceeding three years, unless he sooner completes or abandons said postgraduate course." (1934)

O'Brien Graduate Scholarship: A fund of $20,000 given by Mrs. John Washburn, of Minneapolis, in memory of her uncles, John, William, Jeremiah, and Joseph O'Brien, for a "scholarship,

preferably a graduate scholarship, for a student, or students, to be selected annually by the Faculty, who shall be deemed most suitable to profit by travel or advanced study, either in this country or abroad." (1937)

Nathan Webb Research Scholarship in English or English Literature: A fund of $32,217 bequeathed to the College by Dr. Latham True in memory of his wife's father, the Honorable Nathan Webb, LL.D., the income to be used to support a scholarship of $1,200 annually. The recipient must have received his A.B. from Bowdoin, preferably be unmarried, and use the scholarship in his study toward a Ph.D. "If deemed advisable, the said scholarship may be awarded to the same student for two or three years in succession, but no longer." (1963)

In addition to the scholarships indicated here, Bowdoin students will be nominated and placed in competition for the Rhodes scholarships, Woodrow Wilson Fellowships, and the Marshall scholarships, and may apply for the Fulbright-Hays scholarships for study abroad, National Science Foundation Graduate Fellowships, and other fellowships supported by the government, foundations, or universities.

Graduate Scholarship: Law

Lee G. Paul Scholarship: A fund of $32,500 given by Lee G. Paul, of the Class of 1929, the income to be used to provide financial assistance to graduates attending the Harvard University School of Law and requiring financial aid. (1964)

Graduate Scholarships: Medicine

Garcelon and Merritt Fund: About $17,000 from the income of this fund, established in memory of Seward Garcelon, of the Medical Class of 1830, and Samuel Merritt, of the Medical Class of 1843, is appropriated annually for medical scholarships. The larger part of the amount is awarded to students pursuing their studies in medical schools, and the remainder may be assigned to students in the College who are taking premedical courses; but, at the discretion of the Board of Trustees, all of the income available may be assigned to students in medical schools.

Awards are made only to "worthy and struggling young men . . . in need of pecuniary aid," and preference is given to graduates and former students of Bowdoin College. Applications from men

not graduates or former students of Bowdoin College, but who are residents of the State of Maine, may be considered after they have completed one year in medical school.

Applications for medical scholarships must be made upon forms furnished by the director of student aid, and must be received by the director before December 15.

Loan Funds

(As of January 31, 1971)

The following loan funds were established to assist students in unexpected circumstances to continue their college courses. Applications for loans should be addressed to the director of student aid.

Bowdoin Loan Fund (1959) $256,269
College appropriation.

Cummings Loan Fund (1943) 2,440
Given by George O. Cummings 1913.
Administered by the deans.

Davenport Loan and Trust Fund (1908) 14,689
Given by George P. Davenport 1867.

George P. Davenport Student Loan Fund (1959) 2,824
Given by the Trustees of the Davenport Fund.
Residents of the State of Maine, preferably graduates of Morse High School, Bath.

Harry Fabyan Students' Aid Fund (1966) 5,130
Given by Mrs. Harry C. Fabyan.
Administered by the president of the College.

Guy P. Gannett Loan Fund (1941) 18,875
Given by an anonymous donor.

Augustus T. Hatch Loan Fund (1958) 5,469
Given by the Davenport-Hatch Foundation, Inc.

Albion Howe Memorial Loan Fund (1903) 4,823
Given by Lucien Howe 1870.

Edward P. Hutchinson Loan Fund (1940) 707
Given by Edward P. Hutchinson 1927.
Administered by the deans.

William DeWitt Hyde and Kenneth C. M. Sills Loan Fund (1964) 28,164
Established by Fred R. Lord 1911.
Administered by the president and dean of the College.
For undergraduates, instructors, and assistant professors.

Arthur Stephen Libby Memorial Fund (1949) 1,577
Given by Mrs. Arthur S. Libby.

Charles W. Marston Loan Fund (1960) 5,479
Given by Mrs. Charles W. Marston.

Meddiebempsters Loan Fund (1950) 585
Given by "The Meddiebempsters."

Carleton P. Merrill Loan Fund (1963) 10,269
Given by Ella P. Merrill.

New England Society Loan Fund (1947) 2,898
Given by the New England Society in the City of New York.

President's Loan Fund (1909) 23,688
Given by various donors.

Alfred P. Sloan Foundation Loan Fund (1960) 14,346
Given by the Alfred P. Sloan Foundation, Inc.

In addition, under the terms of The National Defense Education Act Loan Fund, about $1,176,602 has been provided by grants from the United States government and supplemented by the College in the amount of $130,734. Loans are made as provided under Title II, Public Law 85-864 of September 2, 1958—The National Defense Education Act of 1958, as amended. (1959)

Other Student Aid Funds

John L. Roberts Fund (1958)

A fund of $21,075 given by John L. Roberts of the Class of 1911 to assist some underprivileged scholar, other than a teacher or one contemplating teaching, to do research in any field he may choose.

Harold Hitz Burton Student Book Fund (1967)

A fund of $7,964 given in honor and memory of the late Honorable Harold Hitz Burton, LL.D., of the Class of 1909, by members of the Bowdoin Club of Washington and others to assist needy

Bowdoin undergraduates in the purchase of books required in their courses. Administered by the dean of students.

Earle S. Thompson Student Fund (1967)

A fund of $25,000 given in honor of Earle S. Thompson of the Class of 1914 to provide administrative internships for seniors in Bowdoin's Senior Center Program.

The Curriculum

BOWDOIN does not prescribe a pattern of required liberal arts courses for all students. Instead, each student determines, with the help and approval of his academic counselor, what pattern of courses is most "liberating" for him. This practice is based on the belief that each student has come to Bowdoin to pursue seriously a liberal education. Courses, it is assumed, do not simply lead to other courses in the same subject, but properly taught they raise questions and evoke a curiosity that other disciplines must satisfy. The movement from subject to subject occurs not because it is prescribed or because continuation in the same subject is denied, but because the student finds the movement right for his intellectual needs.

Concomitant with this desire to broaden knowledge is a desire to know in depth. To that end, each student participates in a major program during the last two years. In selecting a major field in which to concentrate, the student leaves his academic counselor of the first two years to work with a member of the department in which he is to major. Although each department has specific requirements, special needs are recognized and individualized programs involving more than one department are possible.

Should a student and his adviser be unable to agree on a desirable selection of courses, a special faculty committee serves as an appeal board.

REQUIREMENTS FOR THE DEGREE

For the degree of bachelor of arts, a student must pass thirty-two semester courses and satisfy the requirements of his major department. He must also have been in residence at Bowdoin College for at least one year.

GENERAL REGULATIONS

1. COURSE LOAD: Students are required to take a minimum of four regular courses each semester. Students wishing to take more than *five* courses must have permission of the Deans' Office. If desired, a fifth course may be taken on an ungraded basis.

2. COURSE EXAMINATIONS: The regular examinations of the College are held at the close of each semester. An absence from an examination entails the mark of zero. In the event of illness or

other unavoidable cause of absence from examination, the Deans' Office may authorize makeup of the examination.

3. Course Grades: Course grades are High Honors, Honors, Pass, and Fail. A fifth course carried on an ungraded basis is marked "Sat" (satisfactory) or "Unsat" (unsatisfactory). High Honors indicates a performance of outstanding quality, characterized where appropriate by originality in thought as well as by mastery of the subject at the level studied; the kind of work which leads to a degree *summa cum laude*. Honors indicates a performance which, though short of High Honors, is above the common in insight and understanding and is equal to or close to the quality of work which leads to a degree *cum laude*. Pass is a satisfactory performance consistent with standards for graduation. Fail indicates unsatisfactory work. In independent study courses that will continue beyond one semester, instructors shall have the option of submitting at the end of each semester except the last a grade of "S" for Satisfactory in place of a regular grade. A regular grade shall be submitted at the end of the final semester and shall become the grade for the previous semesters of independent study. With the approval of the Deans' Office, a grade of Incomplete may be recorded in any course. If the course is not completed within one year, the Incomplete becomes permanent or changes to Fail.

4. Grade Reports: A report of the grades of each student is sent to his parents or guardian at the close of each semester.

5. The Dean's List: Students who receive Honors or High Honors for three-quarters of their grades and who receive no failures for one semester are placed on the Dean's List. For purposes of the Dean's List, Satisfactory in an independent study is considered as an Honor grade. Dean's List students are given certain privileges regarding attendance at classes.

6. Deficiency in Scholarship: A student who fails three or more courses at the end of the first semester of the freshman year, or who fails two or more courses at the end of any other semester is dropped from college for one semester. A student is dropped permanently from college if he is subject to dismissal a second time for failing two or more courses.

7. Maximum Residency: No student shall be permitted to remain at Bowdoin for more than nine semesters of full-time work.

8. Senior Course Selection: Each student shall take a course in his major department in each semester of his senior year.

9. Leave of Absence: A student in good standing may, with the approval of his adviser, apply to the Recording Committee for a leave of absence for a specified number of semesters. The leave

must begin at the end of a regular semester. A student on approved leave is eligible for financial aid upon his return.

THE MAJOR PROGRAM

A major program is offered by every department which has been authorized by the Faculty to do so. The departmental requirements for each major are listed in Courses of Instruction on pages 92-164.

Interdepartmental major programs, designed to meet an individual, cultural, or professional objective, may be offered if approved by the departments concerned and the Recording Committee.

Each student must choose his major by the end of his sophomore year after consultation with the department concerned. During the week preceding the spring vacation, the registrar shall post hours for faculty conferences with sophomores regarding choice of a major. No student may major in a department unless he has satisfied the department that he is able to do work of at least passing quality in its courses. Changes in major programs may take place only with the permission of the Recording Committee following the submission of a written request stating the reason for the change. Such request must also be approved by the departments concerned. A student who has not been accepted in a major department cannot continue his registration.

INDEPENDENT STUDY

With departmental approval, a student may elect a course of independent study under tutorial supervision. In most departments the project will consist of a written dissertation or an appropriate account of an original investigation, but projects in music, the fine arts, and letters are also encouraged. *Students who seek departmental honors are expected to register for at least one course in independent study and to achieve an honor grade in it.*

A department will ordinarily approve one or two semesters of independent study, for which regular course credit will be given. A definite plan for the project must be presented by the student, approved by the department, and filed in the Dean of the College's Office. The plan for a fall semester must be on file by October 1; the plan for a spring semester must be submitted in December with the registration card for spring courses. Where more than one

semester's credit is sought, the project will be subject to review by the department at the end of the first semester. In special cases the Recording Committee, upon recommendation of the department, may extend credit for additional semester courses beyond two. In independent study courses that will continue beyond one semester, instructors shall have the option of submitting at the end of each semester except the last a grade of "S" for Satisfactory in place of a regular grade. A regular grade shall be submitted at the end of the final semester and shall become the grade for the previous semesters of independent study. The final corrected copy of the project must be submitted to the department before the last day of classes of the final semester of the work. For *administrative purposes this independent study will bear one or more of the course numbers* 201, 202, 203, 204, *depending upon the number of course credits allowed.*

THE AWARD OF HONORS

Departmental Honors

The degree with *honors, high honors,* or *highest honors* in a major subject is awarded to a student who has distinguished himself in that subject. The award is made by the Faculty upon recommendation of the department. It is based upon such considerations as (a) honor grades in at least a majority of major courses; (b) honor grades in any departmental special major requirements; and (c) honor grades in independent study in the major department.

All written work in independent study accepted as fulfilling honors requirements shall be deposited in the Library in a form specified by the Library Committee.

General Honors

A degree *cum laude* shall be awarded to a student who receives Honors or High Honors in three-quarters of the necessary number of Bowdoin courses presented for the degree.

To receive a degree *magna cum laude* a student shall fulfill the requirement for a degree *cum laude* with the additional requirements that at least one-quarter of his grades must be High Honors, plus one High Honors grade for each Pass grade.

A degree *summa cum laude* shall be awarded to a student who receives High Honors in at least one-half, and Honors in all his other Bowdoin courses presented for the degree.

THE SENIOR PROGRAM

The Senior Center is designed as a community of scholars whose educational growth is not restricted to the classroom. A residence for the director of the Senior Center and his family is provided as an integral part of the Center. Two faculty members and a number of foreign teaching fellows also have living quarters in the Center, so that they can maintain close contact with the seniors. Guest suites for lecturers and other visitors from outside Bowdoin enable the Center to invite a variety of persons to come for extended visits, during which individual conferences and small group discussions can be held. Often a lecturer whose specialty is related to the subject of one of the seminars presents a public lecture of general interest, meets with members of one of the Senior Seminars for a more specialized encounter, and holds discussions with interested students in his guest suite, in the Senior Center dining hall, or in one of the small meeting rooms of the Center. Musical, dramatic, and artistic events take place in the Center, with students sometimes as spectators, sometimes as participants.

The formal academic portion of the Senior Program includes seminars and an increased emphasis upon independent study. The major program in a department chosen by the student, including honors work for qualified seniors, and elective courses in various fields of study continue as in the past to be fundamental parts of the educational experience of the senior year.

Each senior may enroll in one seminar in the fall semester, and he may, if he wishes, elect to take a second seminar in the spring semester. Carrying academic credit, the seminars count toward the degree requirements as do traditional courses. Each seminar consists of one or more instructors and approximately fifteen students, who explore in some depth a problem within an area of learning outside their major field. Penetrating analysis is expected rather than the accumulation of a wide range of information such as might be sought in an introductory course.

To assist the senior with his career planning, the Senior Center, in cooperation with the Office of Career Counseling and Placement and the various academic departments of the College, conducts a broad advisory program of career and graduate study guidance. Bowdoin alumni and others representing many careers are invited to the Center to advise students who show interest in pursuing similar callings. The Center maintains a library of catalogues and other materials pertaining to graduate study in all fields of interest to Bowdoin students. A special effort is made to draw into this aspect

of the Senior Program not only seniors but all undergraduates as they make plans for work and study following graduation.

The director of the Senior Center is a member of the Faculty who combines teaching duties with his supervision of the program. He works with a Senior Center Council consisting of the dean of the Faculty and three members of the Faculty appointed by the president.

The Council is assisted by a Student Committee for the Senior Center. This committee consists of the three elected class officers and may include additional members chosen by the seniors.

SPECIAL PROGRAMS

I. Afro-American Studies

No college aspiring to offer liberal education to its students at this time in history can remain indifferent to the problem of black-white relations in this country. Along with many other colleges and universities, Bowdoin has acknowledged that the traditional liberal arts curriculum has given inadequate attention to serious study of this problem. Therefore, the Faculty in the spring of 1969 authorized the addition of Afro-American studies to the curriculum.

The new program has been created by the Committee on Afro-American Studies, which is composed of five members of the Faculty and five students. The chairman of the committee is the program director. Under his leadership, the committee has created two multidisciplinary problem-centered courses, which constitute the nucleus of the major in Afro-American Studies. Students complete their selections of major courses from a list of regular offerings, in other departments, approved by the committee. (See pages 92-93).

II. Environmental Studies

For several years a number of courses in the Bowdoin curriculum have dealt with one or more aspects of environmental problems. Recently the Bowdoin Faculty has broadened its concern with environmental studies by voting to establish a continuing faculty-student committee to deal with the subject. One of the tasks of this committee is to develop upper-level, interdisciplinary courses in environmental studies for qualified students. Participants in these courses are expected to have a strong background, and to have developed some problem-solving techniques, in an existing major discipline. For 1971-1972 the course developed by this committee is entitled *The Androscoggin, A Case History.*

It is possible for students with particular interests in Environmental Studies and Economics to frame a joint-major in these fields. The chairman of the Department of Economics should be consulted for details.

III. Independent Language Study

Students who have demonstrated high motivation and for whom a special language is pertinent to their educational plans may undertake Independent Language Study for academic credit. These courses are under the guidance of a member of a foreign language department and utilize tapes and native speakers. Examinations are conducted at the end of each semester by an examiner from another college. Approval in advance must be given by the director of the program, Robert R. Nunn, associate professor of Romance languages, and the Recording Committee. These courses may be in any language for which programmed tapes, native speakers, and outside examiners are available. At present, such instruction is available in Chinese and Danish. *For administrative purposes this independent study will be designated Chinese* 11, 12 . . . , *Danish* 21, 22 . . . , *depending upon the number of course credits allowed.*

IV. Preengineering Programs

Students desiring to enter the profession of engineering may qualify for the degree of bachelor of arts from Bowdoin College and also for a degree in engineering in a total of five years (instead of the six years normally necessary for both degrees) by completing one of the joint programs described below. After three years of study at Bowdoin, students become eligible for recommendation to the cooperating engineering institutions provided that sufficiently good grades have been achieved in the prescribed courses; in most instances honor grades will be required for recommendation by the College. Students wishing to avail themselves of one of these plans should notify the Deans' Office of Bowdoin College at the beginning of their freshman year because the programs require a very definite pattern of courses.

Bowdoin-California Institute of Technology Three-Two Plan

Students enrolled in the California Institute of Technology Combined Plan take mathematics and physics in all three years and chemistry in sophomore and possibly junior years, depending on the courses contemplated at C.I.T.

Recommended students are assured of admission to C.I.T. as juniors. The Bowdoin degree will be awarded to such students upon notification from the Institute that they have received their degrees from C.I.T.

Bowdoin-Columbia School of Engineering Combined Plan

Students enrolled in the Columbia Combined Plan are encouraged to take their Bowdoin electives in the general, broad liberal arts field. They must, however, complete two years of mathematics and three or more years of physics and chemistry, the distribution between the two sciences depending upon the type of engineering contemplated. Recommended students are assured of admission to the School of Engineering as juniors after a five to eleven weeks' summer school at Camp Columbia. The Bowdoin degree will be awarded to such students upon notification from the School of Engineering that they have received their degrees from Columbia.

Bowdoin-Massachusetts Institute of Technology Two-Degree Plan

Since 1937 Bowdoin College has been sending students to the Massachusetts Institute of Technology under conditions similar to those of the plans listed above. At present, because of the large number of colleges participating, M.I.T. reserves the right to scrutinize the records of all students applying for transfer before granting admission.

Students enrolled in the M.I.T. Two-Degree Plan take mathematics and physics in all three years and chemistry in sophomore and possibly junior years, depending upon the courses contemplated at M.I.T. Recommended students enter M.I.T. as juniors after, in some cases, an intervening summer term. The Bowdoin degree will be awarded to such students upon notification from the Institute that they have received their degrees from M.I.T.

Programs under this plan can be arranged in architecture, city planning, food technology, geophysics, industrial management, quantitative biology, and science teaching, as well as in the various branches of engineering.

V. Premedical Studies

Students contemplating the study of medicine are advised to arrange their undergraduate course as early as possible through consultation with the Premedical Advisory Committee under the chairmanship of James M. Moulton, professor of biology.

VI. Teaching

A Faculty Committee on Teaching as a Career exists to advise students about preparation for school teaching and for such graduate programs as those offering a master of arts in teaching degree. Advice about college and university teaching is primarily the concern of the student's major department because it will involve plans for doctoral work in his major field.

Students interested in teaching in schools should discuss their plans with the members of the Faculty Committee on Teaching as a Career. Since the normal advice will be that a student include courses in psychology and education along with a major in a teaching field, he should make his interest known as early as possible.

VII. Twelve College Exchange

Bowdoin has joined with Amherst, Connecticut College, Dartmouth, Mount Holyoke, Smith, Trinity, Vassar, Wellesley, Wesleyan, Wheaton, and Williams to form the Twelve College Exchange program.

Through the pooling of the resources of these colleges, there exists an unrivaled educational opportunity for students. The full implications of the exchange are as yet incomplete, but beginning with the 1969-1970 academic year the participating colleges agreed to exchange students, most of whom are juniors. About forty Bowdoin students will participate in the exchange during 1971-1972.

Bowdoin students wishing to participate in the exchange for the 1972-1973 academic year should make application to the Recording Committee of the Faculty. Detailed information on the course offerings of the participating colleges is available from the Office of the Dean of the College. Application is normally made for two semesters. It is hoped that the exchange will afford students the opportunity to take courses which are not offered on their own campus or to study specialized aspects of their major field of concentration with faculty members who have achieved preeminence in that specialty. Course work satisfactorily completed at any of the participating colleges will receive credit toward a degree at the student's "home" college.

VIII. Off-Campus Study

Although Bowdoin does not have an urban center away from the campus or a special overseas program, a number of students

participate successfully in a variety of urban and overseas programs sponsored by other institutions and organizations. Information on these programs is available in the Deans' Office. Approval for participation is given by the Recording Committee upon recommendation of a student's major department. Where a foreign language is involved, the approval of the department concerned is also required.

Courses of Instruction

Arrangement: The departments of instruction in the following descriptions of courses are listed in alphabetical order.

Time and Place of Classes: A schedule containing the time and place of meeting of all courses will be issued before each period of registration.

Year Courses: Courses marked with an asterisk are year courses, and if elected, must be continued for two consecutive semesters.

Bracketed Courses: All courses that cannot be scheduled for a definite semester are enclosed in brackets.

Independent Study: See pages 84-85 for a description.

Prerequisites: Unless otherwise stated in the description, a course is open to all students.

Afro-American Studies

Administered by the Committee on Afro-American Studies: Chairman to be elected; the Dean of Students; Messrs. M. Brown (Music), Freeman (Economics), Johnson (Mathematics), Levine (History), Small (Government); Miss Holloway (History); R. M. Adams, Jr. '73, R. P. Hale '73, G. W. Lewis '73, J. L. Lyons '73

Requirements for the Major in Afro-American Studies: The major consists of ten course units, of which six must be *History* 13, 14, and *Afro-American Studies* 5-6 and 7-8. The remaining four courses must be selected from a list of courses approved by the Committee on Afro-American Studies. Courses approved for inclusion in the Afro-American Studies major are: *Afro-American Studies* 200; *Art* 27; *Economics* 10, 12; *Education* 2; *English* 22, 36; *Government* 5, 51; *History* 20, 21, 34; *Interdepartmental Course* 1; and *Sociology* 6, 8.

*5-6. *Problems in Afro-American Life.* Every year.

A study of psychological, social, economic, and political forces which influence the experiences and life styles of Afro-Americans as individuals in a subculture in the United States. This seminar will help the student to synthesize his previous course work and will provide a significant research and

bibliographic undertaking for him in the literature of Afro-American Studies.

Prerequisites: *History* 13, 14, and the approval of the faculty members of the Committee on Afro-American Studies.

*7-8. *Public Policy and Social Change.* Every year.

A research seminar on the critical problems of social change as they relate to the Afro-American community. The objectives are to make public policy recommendations and to construct subsystem models in education, economics, and politics.

Prerequisites: *Afro-American Studies* 5-6 and the approval of the faculty members of the Committee on Afro-American Studies.

200. *Independent Study.*

Art

Professor Beam, *Chairman;* Associate Professor Cornell; Assistant Professor Stoddard; Lecturers Mr. McKee and Mr. Terrien; and Mr. West

Requirements for the Major in Art: The major consists of six courses offered by the department. These shall include four courses in the history and criticism of art, *Art* 1 through 30. A student intending to major in art is urged to begin his study with *Art* 1, 2, preferably in his freshman year. He may complete the major by taking two additional courses in art history or by enrolling in two of the studio art courses: *Art* 41 through 44.

1. *The Language of Art.* Fall 1971. Mr. Beam and members of the department.

An introduction to form and style in the pictorial and sculptural arts. A study of basic types of expression in these arts as exemplified by representative illustrations from a variety of periods and cultures. Concludes with a consideration of style and styles in the history of art as defined by such authorities as Panofsky and Wölfflin. Several laboratory-type exercises are assigned for study purposes.

2. *The Language of Architecture.* Spring 1972. Mr. Stoddard and members of the department.

An introduction to the organization of the formal elements for utilitarian, aesthetic, and spiritual expression

through the materials and structural systems of architecture. An analysis of numerous examples as illustrations of basic types and major historical styles. Special types of architecture, such as theater, urban megastructures, and the interaction of other media within the context of architecture, are discussed. Design problems are assigned for collateral study, and field trips are scheduled.

21. *The Art of Antiquity.* Fall 1972. Mr. Beam.
Architecture, sculpture, and painting in Egypt, Mesopotamia, and southern Europe during ancient times. Emphasis upon the art of ancient Greece. Concludes with the art of Rome.

22. *Medieval Art.* Spring 1973. Mr. Stoddard.
Medieval art of the early Christian era, Byzantine art, Barbaric art, Ottonian and Romanesque, and the art and architecture of late Gothic cathedrals in France, England, Germany, Italy, and Spain. Emphasis on manuscript illumination, ivory carving, metalwork, and stained glass, examples of which are studied in Boston collections.

23. *European Art of the Renaissance.* Fall 1971. Mr. Beam.
European architecture, sculpture, and painting from the fourteenth through sixteenth centuries in Italy and northern Europe. The civilization arising from the revival of antiquity and the rediscovery of reality is studied broadly and attention is given to such masters as Giotto, Van Eyck, Da Vinci, Michelangelo, Raphael, Titian, Dürer, and Brueghel.

24. *European Art of the Seventeenth and Eighteenth Centuries.* Spring 1972. Mr. Beam.
The post-Renaissance period of European art in the Mannerist, Baroque, and Rococo styles. Special consideration of the schools that arose in Spain, Flanders, Holland, France and England, and of such masters as Caravaggio, Bernini, El Greco, Velasquez, Rubens, Hals, Rembrandt, Hogarth, and Goya.

25. *European Art of the Nineteenth Century.* Fall 1971. Mr. Stoddard.
The main movements in European painting, drawing, and sculpture from the late eighteenth century to 1900. Such exemplars of neoclassicism, romanticism, realism, impressionism, and postimpressionism as David, Ingres, Delacroix,

Goya, Daumier, Manet, Monet, Degas, Cézanne, Van Gogh, Renoir, and Toulouse-Lautrec are studied. Attention is given to the architectural movements that provided the background for painting and sculpture in this period.

26. *Art of the Twentieth Century.* Spring 1972. Mr. Stoddard.
A study of European and American painting and sculpture. Deals initially with developments in Europe in the first decade of this century, including the influence of ethnographic primitive art, Picasso and Cubism, surrealism, cinematography, Piet Mondrian, and nonobjective art. Concludes with movements in contemporary American art.

27. *American Art.* Fall 1972. Mr. Beam.
The main developments of art in America, with special emphasis on painting and sculpture from colonial times to 1900, and a review of the principal architectural movements up through the time of Henry Hobson Richardson. Such artists as Gilbert Stuart, Homer, Eakins, Sargent, and Whistler are studied. The contribution of black artists to American art is considered. Concludes with a survey of the continuation of the American realistic tradition in contemporary painting.

28. *Modern Architecture.* Spring 1973. Mr. Stoddard.
Devoted to the major trends of modern architecture since the beginning of the Industrial Revolution, with attention to such leaders as Sullivan, Frank Lloyd Wright, LeCorbusier, Saarinen, Mies Van der Rohe, Kahn, Gropius, The Architects Collaborative, Stubbins, Breuer, and The Cambridge Seven.

30. *The Art of the Orient.* Spring 1972. Mr. Beam.
The architecture, sculpture, and painting of the Near and Far East, especially Persian painting, Indian sculpture, Chinese painting and sculpture, and Japanese painting, prints, and architecture. Attention is given to ceramics, bronze casting, jade carving, and other minor arts in which the Orient has excelled.

41. *Fundamentals of Composition.* Fall 1971. Mr. Cornell.
The basic principles of composition in drawing and painting in two three-hour meetings weekly in classroom and stu-

dio. Problems in composition are related to a study of major types of composition found in the history of art. No previous training is necessary.

Prerequisite: Consent of the instructor.

41b. *Advanced Photography.* Fall 1971. Mr. McKee.

Photographic and cinematographic visualization and composition. Seminar discussions, field and laboratory work. Students are expected to undertake projects independently and to discuss their progress at regular meetings.

Prerequisite: Open to experienced students with consent of the instructor.

42. *Two- and Three-Dimensional Design in the Visual Arts.* Spring 1972. Mr. Cornell.

The principles of design and their historical expression. Classroom discussions and studio practice.

Prerequisite: *Art* 41 or consent of the instructor.

42a. *Fundamentals of Two- and Three-Dimensional Architectural Design.* Spring 1972. Mr. Terrien.

The principles of architectural design and their historical expression. Classroom discussions and studio practice.

Prerequisite: Consent of the instructor.

42b. *Principles of Photography.* Spring 1972. Mr. McKee.

Photographic visualization and composition as consequences of fundamental techniques of black-and-white still photography. Weekly discussion, field and laboratory work. No prior experience necessary, but a student must have use of appropriate camera equipment. Enrollment limited by available darkroom facilities.

Prerequisite: Consent of the instructor.

43, 44. *An Introduction to Drawing and Painting.* 1971-1972. Mr. Cornell.

The principles of drawing and painting, augmented by practice in the studio with various media of drawing, painting, and graphic arts. Two three-hour meetings weekly in classroom and studio.

Prerequisite: Consent of the instructor.

200. *Independent Study.* The Department.

Biochemistry

Administered by the Committee on Biochemistry:
Mr. Howland (Biology), *Chairman;* Messrs. Hughes (Physics and Astronomy), Mayo (Chemistry), Mathis (Chemistry), Moulton (Biology), and Settlemire (Biology and Chemistry)

Requirements for the Major in Biochemistry: The required courses are *Physics-Chemistry* 17, 18; *Mathematics* 11, 12; *Biology* 44; and *Chemistry* 19, 21, 31. A student must elect six semester courses from the following: *Biology* 33, 40, 47, 200; *Chemistry* 32, 43, 44, 46, 200; *Physics* 25, 200. Should a student elect *Biology* 11, 12, he need take only five additional elective courses. A student may count as electives up to two semesters of the 200 courses, and he may petition the committee to be allowed to substitute other science courses for electives.

Biology

Professor Moulton, *Chairman;* Professors Gustafson, Howland, and Huntington; Assistant Professors Knowlton and Settlemire; Research Associate Dr. Ritchie; Teaching Fellow Mrs. Wine

Requirements for the Major in Biology: The major consists of six semester courses in the department exclusive of courses in the 200 series. Major students are required to complete *Chemistry* 21, a year of mathematics including *Mathematics* 11, and two semesters of physics. They are advised to take *Physics-Chemistry* 17, 18 and mathematics during their freshman year and to begin biology and take *Chemistry* 21 during their sophomore year.

11, 12. *General Biology.* Every year. The Department.
An examination of fundamental biological phenomena, theories, and principles based upon material selected from the plant and animal kingdoms. Special attention is given to the methods of scientific investigation, the relationship of biology to other fields of endeavor, and to man and his environment. Representative organisms and their functions are studied in the laboratory. Lectures and three hours of laboratory work each week.

21. *Invertebrate Zoology.* Every fall. Mr. Knowlton.
A survey of invertebrate animals—their varieties, mor-

phology, development, evolution, and behavior. Laboratories include the study, through dissection and experiments, of representative invertebrates of each group considered so far as possible. Field trips emphasize the study of invertebrate habitats and associations. Lectures, field trips, and three hours of laboratory work each week.

Prerequisite: *Biology* 11, 12 or equivalent.

23. *Comparative Anatomy of the Vertebrates.* Every fall. Mr. Moulton.

Vertebrate morphology. Emphasis on the evolution of mammalian organ systems. Laboratory work consists of dissection and study of comparable systems in representative vertebrates. Lectures and three hours of laboratory work each week.

Prerequisite: *Biology* 11, 12 or equivalent.

24. *Biology of Plants.* Every spring. Mr. Gustafson.

A survey of the plant kingdom with emphasis on the fundamental principles and problems of botany. Laboratory work includes an examination of varied material from all groups of plants, supplemented by field trips investigating the local flora. Lectures and three hours of laboratory work each week.

Prerequisite: *Biology* 11, 12 or equivalent.

26. *Ornithology.* Every spring. Mr. Huntington.

A study of the biology of birds, especially their behavior and ecology. Facilities used in the course include the Alfred O. Gross Library of Ornithology and the College's collection of North American birds. Field trips, including a visit to the Bowdoin Scientific Station (see page 184), are an important feature of the course.

Prerequisite: *Biology* 11, 12 or equivalent.

29. *Ecology.* Every fall. Mr. Huntington.

The relationships between organisms and their environment. Topics include the flow of matter and energy through ecosystems, population dynamics, interactions between and within species, the effect of the environment on evolution, and man's role in the biosphere. Laboratory experiments emphasize independence and diversity in field investigations. Lectures, conferences, and three hours of laboratory or field work each week.

Prerequisite: *Biology* 11, 12 or equivalent.

30. *Vertebrate Histology*. Every other spring. Spring 1973. Mr. Moulton.

The microscopic anatomy of animal cells and tissues. Course material includes the characteristic microscopic structure of the various body tissues. An examination of the possible relations of structure and function within tissues. Opportunity for practice in technique of tissue preparation is part of the laboratory work. Lectures and three hours of laboratory work each week.

Prerequisite: *Biology* 11, 12 or equivalent.

33. *Cell Physiology*. Every fall. Mr. Settlemire.

The nature of cells and subcellular structures, including an examination of the cell environment, the exchange of materials across membranes, energy conversion and utilization, cell excitation and contraction, and growth and cell division. Laboratory experiments emphasize the methods of modern research. Lectures and three hours of laboratory each week.

Prerequisites: *Biology* 11, 12 or equivalent and *Chemistry* 19, 21.

36. *General Physiology*. Every spring. Mr. Knowlton.

The functional aspects of organ systems and of organisms as a whole. Lectures, conferences, and three hours of laboratory work each week.

Prerequisites: *Biology* 11, 12 or equivalent and *Chemistry* 19, 21.

40. *Microbiology*. Every spring. Mr. Settlemire.

The structure, function, and nutrition of micro-organisms from a molecular approach and discussions of the principles of immunology. Laboratory work includes the basic techniques of identifying and culturing micro-organisms and metabolic and growth experiments using radioactive techniques.

Prerequisites: *Biology* 11, 12 or equivalent and *Chemistry* 19, 21.

42. *Embryology*. Offered every other spring. Spring 1972. Mr. Moulton.

The experimental and descriptive biology of animal gametes and embryos, from gametogenesis to advanced stages. The principles of embryological development as shown by both invertebrate and vertebrate organisms with special at-

tention to problems of differentiation. Laboratory work includes observations and experiments with living eggs and embryos as well as with prepared mounts and sections, graphic reconstructions of chick embryos, and studies of mammalian development. Lectures and three hours of laboratory work each week.

Prerequisite: *Biology* 11, 12 or equivalent.

44. *Biochemistry.* Every spring. Mr. Howland.

An introduction to the study of enzymes and enzyme systems. Emphasis on mechanisms of enzyme catalysis and on selected topics in metabolisms. Lectures, demonstrations, and use of the PDP-10 for model studies.

Prerequisite: *Chemistry* 19, 21.

47. *Genetics.* Every fall. Mr. Gustafson.

The development of ideas on variation and heredity, the physical basis of inheritance, applications to plant and animal breeding, relationships of genetics to the theories of evolution, and inheritance in man. Laboratory work in experimental breeding and in molecular aspects of genetics. Lectures, conferences, and three hours of laboratory work each week.

Prerequisite: *Biology* 11, 12 or equivalent.

200. *Independent Study.* The Department.

Chemistry

Professor Mayo, *Chairman;* Associate Professor Butcher; and Assistant Professors Anderson, Hyams, Mathis, Settlemire, and Wheatland

Requirements for the Major in Chemistry: The required courses are *Chemistry* 11 or 18, 12 or 19, 21, 22, 31, 32, three advanced courses approved by the department, and *Physics* 17. Because the department offers programs based on the interest of the student, a prospective major is encouraged to discuss his plans with the department as early in his college career as possible. The department conducts meetings designed to introduce interested students to the literature of chemistry. Students, faculty members, and outside speakers lead seminars sponsored by the department.

11. *Principles of Chemistry.* Fall 1971. Mr. Anderson.

The fundamental concepts of chemistry. The properties of chemical substances and the dynamics of chemical change. Students with adequate preparation may pursue projects of individual interest. Laboratory work emphasizes quantitative procedures. Lectures, conferences, and four hours of laboratory work a week.

Prerequisite: *Physics* 11, 12.

[15. *Advanced General Chemistry.*]

17. *Physics. The Properties of Matter* I. Every fall. Messrs. Butcher (Chemistry), Hughes (Physics), and Wing (Physics).

A discussion of the fundamental laws governing the behavior of matter, including electricity, thermodynamics, and chemical kinetics. This course, together with *Chemistry* 18, constitutes the introductory program for students planning advanced work in science.

Prerequisite: Concurrent registration or previous credit in *Mathematics* 11. Not open to those with credit for *Physics* 11, 12 or *Chemistry* 11.

18. *Chemistry. The Properties of Matter* II. Every spring. Messrs. Butcher (Chemistry), Hughes (Physics), and Wing (Physics).

Continuation of *Physics* 17.

Prerequisite: *Physics* 17 and concurrent registration or previous credit in *Mathematics* 12. Not open to those with credit for *Physics* 11, 12 or *Chemistry* 11.

19. *Elementary Organic Chemistry.* Fall 1972. Messrs. Mathis and Mayo.

An introduction to the chemistry of the compounds of carbon. The foundation for further work in organic chemistry and biochemistry. Lectures, conference, and six hours of laboratory work a week.

Prerequisite: *Chemistry* 11, 15 or 18.

21. *Organic Chemistry.* Fall 1971 and spring 1973. Messrs. Mathis and Mayo.

A continuation of the study of the compounds of carbon. *Chemistry* 19 and 21 cover the material of the usual course in organic chemistry and form a foundation for further work in organic chemistry and biochemistry. Lectures, conference, and six hours of laboratory work a week.

Prerequisite: *Chemistry* 12 or 19.

22. *Fundamentals of Inorganic and Analytical Chemistry.* Every spring. Messrs. Settlemire and Wheatland.

The general principles of inorganic and analytical chemistry. The laboratory consists of basic inorganic preparations with subsequent analyses of the products. Lectures, conference, and six hours of laboratory a week.

Prerequisite: *Chemistry* 21.

31. *Physical Chemistry* I. Every fall. Mr. Butcher.

Thermodynamics and its application to problems of chemical interest including the solid, liquid, and gaseous states; equilibrium; electrochemistry; and kinetics.

Prerequisites: *Chemistry* 22, *Physics* 11, 12, *Mathematics* 11, 12, or consent of the instructor.

32. *Physical Chemistry* II. Every spring. Messrs. Anderson and Hyams.

Quantum mechanics with applications to the determination of molecular structure and the theory of the chemical bond.

Prerequisite: *Chemistry* 31 or consent of the instructor.

[41. *Advanced Analytical Chemistry.*]

42. *Inorganic Chemistry.* Fall 1971. Mr. Wheatland.

The structures, properties, reaction mechanisms, and syntheses of inorganic compounds.

Prerequisite: *Chemistry* 31, 32.

43. *Molecular Structure Determination in Organic Chemistry.* Fall 1971. Mr. Mayo.

The application of infrared, Raman, ultraviolet, nuclear magnetic resonance, and mass spectrometry to the structural elucidation of complex organic systems.

Prerequisite: *Chemistry* 21 or consent of the instructor.

44. *Advanced Organic Chemistry.* Spring 1972, Mr. Mathis.

An introductory study of structure and mechanism in organic and bio-organic chemistry. Emphasis on understanding the mechanistic implications of molecular structure and developing mechanistic theory from experimental data.

Prerequisites: *Chemistry* 21, 31 or consent of the instructor.

45. *Advanced Physical Chemistry.* Fall 1972. Mr. Hyams.

The material to be covered depends upon the interests of the students.

Prerequisite: *Chemistry* 31, 32 or consent of the instructor.

46. *Special Topics in Chemistry*. Spring 1972. Mr. Settlemire.
The material to be covered depends upon the interests of the students.
Prerequisite: *Chemistry* 21 or consent of the instructor.

200. *Independent Study*. The Department.

Classics

Associate Professor Ambrose, *Chairman;* and Professor Dane

Requirements for the Major in Classics, Greek, or Latin: The major in classics consists of eight units to be chosen equally from the departmental offerings in Greek and Latin except *Greek* 1 and *Latin* 3, 4. A major in Greek consists of any six units in Greek except *Greek* 1. A major in Latin consists of any six units in Latin except *Latin* 3, 4.

Classics

12. *Introduction to the Languages and Literatures of Greece and Rome*. Every spring. Mr. Dane.
Develops from the outset an elementary reading knowledge of Greek and Latin by the concentrated study of parallel passages. Lectures and readings in reputable English translations survey the main outlines and spirit of classical literature.
No previous knowledge of Greek or Latin is required. Closed to students who have studied *both* languages.

Greek

1. *Elementary Greek*. Every fall. Mr. Ambrose.
A thorough presentation of the elements of accidence and syntax based, insofar as possible, on unaltered passages of classical Greek.

2. *Continuation of Course* 1. Every spring. Mr. Ambrose.
In the latter half of the term a work of historical or philosophical prose is read.

3. *Plato*. Every fall. Mr. Dane or Mr. Ambrose.

4. *Homer*. Every spring. Mr. Ambrose.

5. *Selected Greek Authors*. Every fall. Mr. Ambrose.
Designed to meet the needs of advanced students in Greek

literature, with extensive readings from representative authors in such fields as drama; history; philosophy; lyric, elegaic, and epic poetry; and oratory. *The course may be repeated for credit with contents changed.*

6. *Continuation of Course* 5. Every spring. Mr. Ambrose.

Latin

3. *Cicero.* Every fall. Mr. Dane.
   A rapid review of grammar followed by reading in a philosophical essay.
   Prerequisite: Two years of secondary school Latin.

4. *Vergil. The Aeneid.* Every spring. Mr. Dane or Mr. Ambrose.
   Prerequisite: *Latin* 3 or its equivalent.

5. *Horace and Catullus.* Every fall. Mr. Ambrose.
   Prerequisite: *Latin* 4 or its equivalent.

7. *Selected Latin Authors.* Every fall. Mr. Dane.
   Designed to meet the needs of advanced students in Latin literature, with extensive readings from representative authors in such fields as satire, drama, philosophy, history, and elegy. *The course may be repeated for credit with contents changed.*

8. *Continuation of Course* 7. Every spring. Mr. Dane.

200. *Independent Study.* The Department.

Economics

Associate Professor Freeman, *Chairman;* Professors Abrahamson, Darling, and Shipman; Assistant Professors Hanis, Hopkins, and Vail; and Lecturer Mr. Hokanson

Requirements for the Major in Economics: The major consists of *Economics* 1, 2, 3, 5, 6, and three other courses approved by the department. One of the electives may be chosen with the consent of the department from courses in related disciplines. Students planning graduate study in economics should consult with the chairman of the department before choosing electives. The department requires seniors to take an integrative essay examination in the fall semester and the Undergraduate Record Examination in Economics in the spring semester.

The department offers a modified major program for students considering work in environmental studies. The chairman should be consulted for details.

1. *Principles of Economics.* Every semester in sections of 20-30 students each. THE DEPARTMENT.

   Fundamental economic concepts, relationships, and institutions, with emphasis on analytical methods.

2. *Applications of Economic Principles.* Every spring in sections of 10-30 students each. THE DEPARTMENT.

   Selected contemporary problems and the way in which economic principles and policies can aid in their solution.

   Prerequisite: *Economics* 1.

3. *Economic Statistics.* Every fall. MR. HANIS.

   Statistical theory and descriptive methods applied to typical research problems in economics. Laboratory work involves individual student use of instructional computer programs. No prior computer experience is required.

   Prerequisites: *Economics* 1 and *Mathematics* 12 or 14, or consent of the instructor.

4. *Accounting and the Analysis of Financial Statements.* Every spring. MR. HOKANSON.

   Accounting analysis as an important working tool for the business executive, the public administrator, and the economic researcher. Consideration of such subjects as the preparation and interpretation of financial statements, the nature of income, the valuation of assets, depreciation, and reserves.

   Prerequisites: *Economics* 1 and consent of the instructor.

5. *Economic Analysis* I. Every fall. MR. FREEMAN.

   An advanced study of contemporary price theory focusing on such elements as the household and the firm and their behavior in relation to prices and quantities produced under various market conditions. Actual and optimal patterns of resource allocation and income distribution are examined. An introduction to welfare economics and linear programming, input-output analysis, and other modern analytical techniques.

   Prerequisite: *Economics* 1.

6. *Economic Analysis* II. Every spring. MR. HOPKINS.

   An advanced study of contemporary national income and

growth theory with emphasis on the relationships among consumption, investment, government receipts and expenditures, money and interest rates, and their role in determining the level of aggregate economic activity. Some attention is given to policy implications of the analysis.

Prerequisite: *Economics* 1.

7. *International Economics.* Spring 1973. Mr. Freeman.

The theory and practice of foreign trade, balance of payments, international movements of capital, and governmental policies with regard to international economic affairs generally.

Prerequisite: *Economics* 1.

8. *Economic History and Development.* Fall 1971. Mr. Shipman.

An advanced study of economic growth and industrialization in the West, combining development theory and institutional history. Emphasis on Great Britain from 1750 to 1850 and the United States from 1790. A general knowledge of European and American history is assumed.

Prerequisite: *Economics* 1.

9. *Economics of Money, Banking, and Finance.* Fall 1971. Mr. Darling.

The general principles and institutions of money, banking and financial markets as they relate to the performance of the economic system. Current problems concerning financial institutions, the flow of funds into investment, the Federal Reserve System, and the use of monetary and financial controls are considered.

Prerequisite: *Economics* 1.

10. *Economics of the Public Sector.* Fall 1971. Mr. Hopkins.

A study of U. S. federal and state government revenue and expenditure policies as they affect resource allocation. Primary attention is given fiscal problems associated with public goods and externalities, and general aspects of tax policy.

Prerequisite: *Economics* 1.

11. *Urban Economics.* Spring 1972. Mr. Darling.

The economic causes and consequences of urbanization. The relationships among the metropolitan region, its city core, and the national economy analyzed from the viewpoint of their bearing on the rate of economic growth and the

quality of life in the urban area. Attention is given to the economic aspects of such problems as unemployment and poverty, housing, transportation, environmental pollution, public education, health care and recreation, crime and public disorder, including differences in these problem areas as they relate to the black community and other minorities.

Prerequisite: *Economics* 1.

12. *Labor and Manpower Economics.* Fall 1971. Mr. Abrahamson.

The problems surrounding unionism, collective bargaining, unemployment, and manpower utilization are considered from the viewpoints of labor, management, and the public.

Prerequisite: *Economics* 1.

13. *History of Economic Thought.* Fall 1972. Mr. Shipman.

The "worldly philosophers" from the seventeenth century onward. Special attention is given to the historical development of those ideas and concepts now constituting the core of economic analysis, and to the relation such ideas bear to the mainstream of intellectual history.

Prerequisite: *Economics* 1.

14. *Economic Systems and Planning.* Fall 1971. Mr. Vail.

Theoretic and case study of alternative methods of economic organization in the modern world. Special consideration of the economics of central planning in the Soviet Union, Eastern Europe, and China; of indicative planning in Italy; and of planning problems specific to the developing nations of East Africa.

Prerequisite: *Economics* 1.

15. *Industrial Organization and Public Control.* Spring 1972. Mr. Shipman.

A study of the structure, performance, and control of selected industries. Attention is given to transport, power, and communications as well as to the manufacturing sector. Social and cultural impacts are also explored.

Prerequisite: *Economics* 1.

16. *Econometrics and Simulation.* Spring 1973. Mr. Hanis.

An application of elementary mathematics, statistics, and computer simulation to the study of past and alternative future economic relations. Special emphasis on the use of

existing social science information and computing systems. Students are expected to enter the course with advanced programming skills in the language BASIC and with at least some knowledge of FORTRAN.

Prerequisites: *Economics* 1, and *Economics* 3 or *Mathematics* 26 or 30, and consent of the instructor.

18. *Economics of Resources and Environmental Quality.* Every spring. MR. FREEMAN.

The economic dimensions of environmental quality and resource management problems faced by the United States and the world. The relationships among population, production, and pollution; the role of market failure in explaining the existence of pollution; evaluation of alternative strategies for pollution control and environmental management; the adequacy of natural resource stocks to meet the future demands of the United States and the world.

Prerequisite: *Economics* 1 or consent of the instructor.

19, 20. *Contemporary Problems.*

Topics include urban economics, population problems, conservation and the quality of the environment, the economics of health and education, economic fluctuations and forecasting, social and economic implications of science, the problems of economic growth in poor nations, and the economics of poverty in America.

Prerequisites, if any, are determined by the instructor.

Spring 1972: 20. *Problems of Economic Growth in Underdeveloped Areas.* MR. VAIL.

A study of the problems of growth and development in less industrialized parts of the world. Special attention is given to the experience of Africa and to the role of formal development planning.

Prerequisite: *Economics* 1.

200. *Independent Study.* THE DEPARTMENT.

Education

PROFESSOR HAZELTON, *Chairman*

1. *History of Education.* Every fall.

The development of education, chiefly in the United States, in its social and cultural setting.

2. *Education in the Twentieth Century.* Every spring.

The purposes, organization, and government of modern educational systems. The main emphasis is given to these aspects of American education, but comparative studies of the English system are included.

Prerequisite: *Education* 1 or consent of the instructor.

5. *Secondary Education.* Fall 1971.

The problems of policy and practice in secondary education. Special attention is given to the development of public policy in American education.

Prerequisite: *Education* 2 or consent of the instructor.

6. *Teaching.* Spring 1972.

A study of the process of teaching, the organization of subjects, and the teacher's profession. Part of the work of the course consists of observation in secondary schools.

Prerequisites: An appropriate sequence of courses in psychology and education, and consent of the instructor.

200. *Independent Study.*

NOTE: Undergraduates considering a career in teaching should make their interest known to Mr. Hazelton as soon as possible.

On page 90 there is a further discussion of careers in teaching.

English

ASSOCIATE PROFESSOR REDWINE, *Chairman;* PROFESSORS BROWN, COXE, GREASON, AND HALL; ASSOCIATE PROFESSOR COURSEN; ASSISTANT PROFESSORS BURROUGHS, IKELER, AND PALUSKA; AND DIRECTOR OF THEATER MR. RUTAN

REQUIREMENTS FOR THE MAJOR IN ENGLISH AND AMERICAN LITERATURE: The major consists of ten courses including a Junior Major Tutorial (*English* 60) and nine semester courses as follows: At least one semester unit is required from each of four groups: (1) *English* 10, 11, or 12; (2) 13 or 14; (3) 15, 16, or 17; (4) 18, 19, or 20. Five additional units may be chosen from the foregoing and/ or *English* 1, 2 (Freshman-Sophomore Seminars,* not more than two), 21, 22, 30, 31, 32, 33, 34, 35, 36, 41. In addition, candidates for honors in English are required to write an honors essay and to take a comprehensive examination in the senior year. Exceptions to this program may be arranged by the department to

*Composition seminars do not count toward the major.

encourage and accommodate special individual programs such as interdisciplinary majors.

Freshman-Sophomore Seminars

1, 2. *Seminars in English Composition and Literature.* Every semester.

Open to freshmen and sophomores. Enrollment normally limited to fifteen a section. Class discussion, outside reading, written papers, and conferences.

1. *Composition.* Fall 1971 and spring 1972. THE DEPARTMENT.

Written work on assigned topics. Emphasis on analysis of problems of exposition.

2. *Survey of English Literature: Beginnings Through the Eighteenth Century.* Fall 1971. MR. IKELER.

Emphasis on Chaucer, Shakespeare, and Swift.

3. *Survey of English Literature: Romantic, Victorian, and Modern.* Spring 1972. MR. IKELER.

Nineteenth-century poetry and the development of the novel. Blake, Keats, Wordsworth, Tennyson, Dickens, Thackeray, Hardy, Joyce, and Eliot.

4. *Russian Fiction of the Nineteenth Century.* Fall 1971. MR. BURROUGHS.

Emphasis on Tolstoy and Dostoevski; *War and Peace, The Brothers Karamazov;* Turgenev's *Fathers and Sons.*

5. *Twentieth-Century Southern Fiction: Themes and Backgrounds.* Spring 1972. MR. BURROUGHS.

Concentration on fiction growing out of the South's social and historical experiences. Faulkner: *Go Down Moses, The Unvanquished, Light in August*; Hughes, ed.: *The Best Short Stories by Negro Writers*; Styron: *The Confessions of Nat Turner*; O'Connor: *The Violent Bear It Away, A Good Man Is Hard to Find.*

6. *The Literature of Oppression.* Fall 1971 and spring 1972. MR. PALUSKA.

Literature dealing with the conditions and responses of the disenfranchised, alienated, and weak. Baldwin: *The Fire Next Time, Go Tell It on the Mountain*; Cleaver: *Soul on Ice*; Dickens, *Hard Times*; Dreiser: *An American Tragedy*;

Melville: *Benito Cereno, Billy Budd,* "Bartleby the Scrivener"; Prescott: *Conquest of Mexico*; Orwell: *A Collection of Essays*; Wright: *Native Son*. Near the end of the semester students have the opportunity to work independently on an author or problem of their choice.

7. *Autobiography*. Fall 1971. Mr. Coursen.
Selections from Dylan Thomas, Nabokov, Updike, Capote, Maxim Gorki, Woodie Guthrie, E.B. White, Skip Marquis, Rube Marquard, and Joe Dane. The seminar will work toward the student's own activity in the genre of autobiography.

8. *The Modern Short Story*. Fall 1971. Mr. Hall.

Advanced Courses

7. *English Composition*. Every year. Fall 1971. Mr. Ikeler.
Written work on assigned topics; attention to the disciplines of composition, with emphasis on methods of exposition. Ordinarily limited to students not planning to take *English* 8.
Prerequisite: Consent of the instructor.

8. *Advanced Composition*. Every year. Spring 1972. Mr. Coursen.
Written work with emphasis on imaginative writing. Ordinarily limited to students who have not taken *English* 7.
Prerequisite: Consent of the instructor.

9. *Literary Composition*. Every other year. Fall 1972. Mr. Coxe.
The writing of poetry and fiction. Primarily for juniors and seniors.
Prerequisite: Consent of the instructor.

[10. *Origins and Development of the Language*.]

11. *Chaucer*. Every other year. Fall 1971. Mr. Burroughs.
A study of the *Canterbury Tales,* the *Prologue* and connecting links, *Troilus and Criseyde,* and the minor poems.

12. *Medieval Poetry and Prose*. Every other year. Fall 1972. Mr. Burroughs.
Initial consideration of old English poetry; concentration on the major literature of the fourteenth and fifteenth centuries. All Middle English works read in the original.

13. *Shakespeare* I. Every fall. Fall 1971. Mr. Brown.
An intensive study of Shakespeare's principal comedies, history plays, early tragedies, and poems.

14. *Shakespeare* II. Every spring. Spring 1972. Mr. Brown.
An intensive study of the principal tragedies and the dramatic romances.

15. *English Literature of the Early Renaissance.* Every other fall. Fall 1971. Mr. Redwine.
A critical study of the literature of the sixteenth century, with emphasis upon Elizabethan nondramatic poetry.

16. *English Literature of the Later Renaissance.* Every other spring. Spring 1972. Mr. Redwine.
A critical study of the literature of the seventeenth century exclusive of Milton, with emphasis on the poetry of Donne and Jonson and their followers.

17. *Milton.* Every other year. Fall 1972. Mr. Redwine.
A critical study of his chief writings in poetry and prose.

18. *Eighteenth-Century Poetry and Prose.* Every other year. Spring 1972. Mr. Greason.
A study of neoclassical values, with special attention to the writings of Swift, Pope, and Johnson.

19. *English Romanticism.* Every other year. Fall 1972. Mr. Hall.
The origins, growth, and nature of romanticism, with emphasis on Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats, with illustrative parallels in the visual arts, including paintings of Gainsborough, Reynolds, Constable, Blake, and Turner.

20. *Victorian Poetry.* Every other year. Spring 1973. Mr. Coxe.
A critical study of the major Victorian poets.

21. *Twentieth-Century English and American Literature* I. Every other fall. Fall 1971. Mr. Hall.
The philosophic and technical bases of the modern schools beginning with Joseph Conrad.

22. *Twentieth-Century English and American Literature* II. Every other spring. Spring 1972. Mr. Coursen.
Various developments in contemporary literature.

30. *Literary Criticism: Definitions and Methods.* Every year. Spring 1972. Messrs. Hall and Redwine.

An approach to criticism through the definitions of its governing concepts and terms; analysis of selected critical writings and practice in the application of the principles and instruments of criticism.

31. *The Development of the English Drama.* Every other fall. Fall 1972. Mr. Rutan.

The plays of Medieval, Elizabethan (excluding Shakespeare), Jacobean, and Restoration drama, as far as Sheridan.

32. *Modern Drama.* Every other spring. Spring 1973. Mr. Rutan.

Modern dramatic literature, with emphasis on the comparative trends and influences of foreign drama.

33. *The English Novel* I. Every other fall. Fall 1971. Mr. Paluska.

The development of English fiction and the changing patterns of the novel in the eighteenth and nineteenth centuries, through Thackeray.

34. *The English Novel* II. Every other spring. Spring 1972. Mr. Ikeler.

Later nineteenth-century fiction.

35. *American Literature* I. Every fall. Fall 1971. Mr. Brown.

Lectures and readings in American literature from the Puritan Age to the Civil War.

36. *American Literature* II. Every spring. Spring 1972. Mr. Brown.

Major American writers from 1865 to 1950.

41. *Studies in Literary Genres.* Every year.

Lectures, discussions, and extensive readings in a major literary genre: e.g., The Narrative Poem, The Lyric Poem, Fiction, Comedy, Tragedy, or The Essay.

1. *Shakespeare and the Eucharist.* Fall 1971. Mr. Coursen.

An examination of six plays in the context of the Queen Elizabeth Prayer Book (1559). Shakespeare's use of ritual and ceremony and its close relation to the religious practices of the Elizabethan "common man" will be examined in *Richard II, Hamlet, Othello, King Lear, Macbeth,* and *The Tempest.* The student is not required to have a background in religion; the emphasis is on how the Elizabethan Communion service informs the plays.

2. *Hawthorne and the Romance.* Spring 1972. MR. HALL.
The origins and development of Romance fiction with readings in medieval romance, Hawthorne, Melville, Emily Brontë, Conrad, and others.

3. *American Autobiography.* Spring 1972. MR. PALUSKA.
Various literary forms and styles that grow out of America's inclination toward self-examination and public explanation. Introspective poetry, journals, and travel narratives as well as more conventional autobiographies from Puritans to modern black writers to be discussed and written about. The reading list includes works by Franklin, Emerson, Thoreau, Melville, Twain, Baldwin, and Malcolm X.

[47. *Playwriting.*]

50. *Fundamentals of Theater.* Every semester. MR. RUTAN AND WILLIAM H. MOODY, THEATER TECHNICIAN.
A studio class for students interested in fundamentals of acting, directing, set designing, or technical production in the theater.
Prerequisite: Consent of the instructor.

60. *Junior Major Tutorial.* Every semester. THE DEPARTMENT.
Individual study for one semester (fall or spring) under tutorial supervision in an area (e.g., a period, a movement, a genre) which has not been covered formally through courses. The study shall consist of conferences and the supervised writing of a major essay.

200. *Independent Study.* THE DEPARTMENT.

Geology

ASSOCIATE PROFESSOR HUSSEY, *Chairman*

Students contemplating graduate work in geology should consult with the chairman of the department as soon as possible. They should plan a major program in chemistry, physics, biology, or mathematics, and take *Geology* 1, 2, 3, 4, 5, and 8. *Geology* 1 and 2 should be taken in the freshman year and by the end of the sophomore year the following courses should be completed: *Mathematics* 11, 12 and *Physics-Chemistry* 17, 18.

1. *Introduction to Physical Geology.* Every year.
Lectures devoted to the composition and structure of the earth and the processes which affect the earth's crust. Three

hours of laboratory each week includes the recognition and study of common rocks and minerals, the interpretation of topographic and geologic maps, and two half-day trips to examine the geological features of the Brunswick vicinity. In addition a one-day trip is taken to southern York County to examine evidence for glaciation, recent sea level changes, and sequence of intrusion of four major magma series.

2. *Introduction to Historical Geology.* Every year.

Lectures devoted to a study of the principles involved in the interpretation of geologic history as deciphered from the rock record and a review of present knowledge of the evolution of the earth and its inhabitants. Three hours of laboratory each week includes the recognition of fossils and their modes of preservation, interpretation of geologic maps, and a summary of the geologic history of the principal tectonic belts of North America. A one-day field trip is taken in the spring to illustrate important aspects of the geologic history of the southern coastal Maine area.

Prerequisite: *Geology* 1.

3. *Crystallography and Mineralogy.* Fall 1971 and fall 1973.

Lectures devoted to morphological crystallography, crystal chemistry, and a survey of the common rock-forming and economic minerals. Six hours of laboratory each week includes morphological and X-ray crystallography, and identification of minerals by inspection, chemical, optical, and X-ray diffraction techniques.

Prerequisite: *Chemistry* 18 or *Geology* 1.

4. *Optical Mineralogy and Petrography.* Spring 1972 and spring 1974.

The classification, genesis, and description of the common rock types. Six hours of laboratory each week devoted to the theory and use of the petrographic microscope as applied to mineral identification and rock description.

Prerequisite: *Geology* 3.

5. *Structural Geology.* Fall 1972 and fall 1974.

The primary and secondary structures of rocks, and the interpretation of crustal deformation from these features. Laboratory work includes the interpretation of the structural features of the United States as synthesized from local and regional data.

Prerequisite: *Geology* 1, 2.

8. *Invertebrate Paleontology.* Spring 1973 and spring 1975.
The concepts and paleontological evidence of evolution, the principles of paleontology, and application of fossil data to geology and biology. The classification and morphology of the invertebrate groups occurring as fossils. Three lecture hours and three laboratory hours each week.
Prerequisite: *Geology* 1, 2 or *Biology* 11, 12.

200. *Independent Study.*

German

Associate Professor Hodge, *Chairman;* Professor Riley; Mr. Cerf; and Teaching Fellow Stiefenhöfer

Requirements for the Major in German: The major consists of any five courses selected from *German* 13 through *German* 18 and one semester of *German* 22 or an independent study approved by the department.

1, 2. *Elementary German.* Every year. Messrs. Cerf and Hodge.
Three hours a week of training in grammar, composition, and reading. Two hours of audio-lingual training in the language laboratory or in conversation classes with the teaching fellow, Mr. Stiefenhöfer.

3, 4. *Intermediate German.* Every year. Mr. Riley.
Three hours a week of reading, composition, and review of grammar. One hour of audio-lingual training in the language laboratory or in conversation classes with the teaching fellow, Mr. Stiefenhöfer.

5, 6. *German Conversation and Composition.* Every year. Mr. Hodge.
Designed to increase oral fluency, compositional skills, and understanding of spoken German. Metaphorical expression and other idiomatic usages may be emphasized during the second semester.
Prerequisite: *German* 4 or its equivalent.

7. *Advanced Translation: German to English.* Fall 1972.
For students of all disciplines who expect to do specialized reading or research work in German. Emphasis on "decoding" difficult structures, discrepancies between grammar and style, and various approaches to vocabulary learning. Read-

ings from areas of general knowledge. As a final project each student translates a reading selection from his own subject area.

Prerequisite: *German* 4 or its equivalent.

8. *Continuation of Course* 7. Spring 1973.

Prerequisite: *German* 7 or consent of the instructor.

13. *The Development of Literary Classicism.* Fall 1971. Mr. Hodge.

Beginning with the reaction against the Age of Reason and continuing into the later works of Goethe and Schiller.

Prerequisite: *German* 4 or its equivalent.

14. *The Romantic Movement.* Spring 1972. Mr. Hodge.

Its literary philosophy, several schools of thought, and preferred genres, including consideration of such representative or influential figures as Tieck, A.W. and F. Schlegel, Kleist, Arnim, Brentano, Chamisso, Eichendorff, E.T.A. Hoffmann, and Schopenhauer.

Prerequisite: *German* 4 or its equivalent.

15, 16. *Literature of the Nineteenth and Twentieth Centuries.* 1972-1973.

German literature ca. 1830-1950. Such authors as Hebbel, Storm, Meyer, Keller, Hauptmann, Hofmannsthal, Mann, Kafka, and Brecht are included.

Prerequisite: *German* 4 or its equivalent.

17. *Contemporary Literature.* Fall 1972.

Stress on the newest—largely untranslated—authors and on authors not ordinarily considered in *German* 15, 16, e.g., Dürrenmatt, Musil, Grass, Böll, Weiss, Handke, Dorst, Doderer, among others.

18. *The Short Prose Form.* Fall 1971. Mr. Cerf.

Unique theory, form, and content of the German *Novelle* as they have developed from Goethe to the present.

Prerequisite: *German* 4 or its equivalent.

22. *Seminar in Aspects of German Literary History.* Every spring.

Work in a specific area of German literature not covered in other departmental courses, e.g., individual authors, literary movements, genres, cultural influences, literary-historical periods.

Prerequisite: One semester's work beyond *German* 4 or equivalent.

Spring 1972: *The Enlightenment Period.* Mr. Cerf.

31, 32. *Representative Works of German Literature in English Translation.* 1971-1972. Mr. Riley.

Emphasis on longer forms (novel, epic) and on literature since 1870.

200. *Independent Study.* The Department.

Government and Legal Studies

Associate Professor Morgan, *Chairman;* Professors Daggett and Donovan; Associate Professors Potholm and Rensenbrink; Assistant Professors Emmert and Small; Senior Lecturer Mr. Robison

Requirements for the Major in Government and Legal Studies: The major consists of at least two Level A courses and at least six Level B courses. Majors must, however, take at least one course from each division of the department's offerings: American government (3, 5, 6, 9, 10, 13, 14, 30, and 31); comparative government (4, 12, 22, 23, and 51); political theory (1, 16, 17, 19, and 20); and international politics (2, 7, 8, 15, and 18).

In addition, the student seeking to graduate with honors in government and legal studies must take the honors seminar (*Government* 60) during one semester of his senior year and must prepare an honors paper. No more than one semester of independent study may be substituted for a course in completing the eight-course requirement (two from Level A and six from Level B). Independent study may not be substituted for *Government* 60 by students pursuing honors; the honors candidate may, however, take independent study during the semester of his senior year in which he is not taking *Government* 60.

Sophomore standing is required for courses numbered 5-29; junior standing for courses numbered 30-39; senior standing for courses 60-69. Courses numbered 50-59 are specialized seminars with individualized requirements as to class standing and prerequisite courses.

Level A Courses

1. *Introduction to Political Theory.* Fall 1971. Mr. Emmert.

A systematic examination of selected major problems of

politics, such as legitimacy, obligation, authority, and participation.

2. *Introduction to International Relations.* Spring 1972. Mr. Potholm.

Patterns of cooperation and conflict in the interaction of nation-states; analysis of the traditional forms of interstate behavior. Attention is also given to such topics as the international espionage subculture, revolutionary change, and the causes of war.

3. *Introduction to American Government.* Fall 1971 and spring 1972. Messrs. Donovan and Morgan.

Emphasis on the national government and the making of public policy. Examination of the Constitution, Supreme Court, presidency, Congress, political parties and interest groups, bureaucracy, and national budget-making. Whenever possible an attempt will be made to relate the study of basic institutions to the development of current issues of public policy.

4. *Introduction to Comparative Government.* Fall 1971 and spring 1972. Messrs. Potholm and Rensenbrink.

An introduction to the study of governments other than the United States. Governments selected for study vary from year to year but usually include a Western European parliamentary type, a communist one-party type, and the government of a non-Western, noncommunist developing country.

Level B Courses

5. *Urban Governments.* Fall 1972. Mr. Morgan.

The structures of political power in major American metropolitan areas, and the problems generated by recent population shifts in America.

Prerequisite: *Government* 3 or 13

6. *Law and Society.* Fall 1971. Mr. Morgan.

Selected nonconstitutional areas of American public law which have become the focus of intense political conflict: to include federal and state statutory efforts in the field of civil rights, police practices, and the philosophical underpinnings of the criminal law.

Prerequisite: Any Level A course.

7. *International Law.* Fall 1971. Mr. Daggett.

The modern state system, the role of law in its operation,

the principles and practices which have developed, and the problems involved in their application.

Prerequisite: Any Level A course.

8. *International Organization.* Spring 1972. Mr. Daggett.

The development of arbitration and judicial settlement, the League of Nations, the United Nations, and selected agencies such as the International Labor Organization.

Prerequisite: Any Level A course.

10. *The American Presidency.* Spring 1972. Mr. Emmert.

An examination through the study of historical materials and recent literature of the office of the president and of presidential leadership. Emphasis on the case for and against a vigorous, independent executive and on understanding the problems and nature of statesmanship in a liberal democracy.

Prerequisite: Any Level A course.

12. *Advanced Comparative Government.* Fall 1971. Mr. Rensenbrink.

An exploration of political development or modernization, either by a comparison of a Western developed country (other than the United States) to a non-Western underdeveloped country or by the analysis of the modernization of a contemporary European government. Comparisons and contrasts will be made in the light of analytic materials that probe the nature of development and which identify the problems of political formation and continuity. The aim is to involve the student in significant political issues in a familiar and in an unfamiliar context and thereby sharpen his understanding of basic political forces and of options available under varying circumstances.

Prerequisite: Consent of the instructor.

13. *Parties, Interest Groups, and Elections in America.* Fall 1971. Messrs. Donovan and Morgan.

Parties and interest groups, their functions in the American system, and their relationships with other political institutions. Also the dynamics of voting behavior and campaign techniques.

Prerequisite: Any Level A course.

14. *The Policy-Making Process.* Spring 1972. Mr. Donovan.

The policy-making process in American government with emphasis on executive-legislative relations, the roles of Con-

gress and the presidency, and the basic problem of responsible formulation of public policy in American democracy.

Prerequisite: Any Level A course.

15. *Advanced International Politics.* Spring 1972. Mr. Small.

An examination of some new and even novel approaches to the study of international politics. Designed to help students become aware of the ways in which the relations between nation-states may be conceptualized and studied.

Prerequisite: *Government* 2.

16. *Development of American Political Thought.* Spring 1972. Mr. Donovan.

American political thought from the seedtime of the Republic through the present. Emphasis on an analysis of major American thinkers from Madison to John Dewey. Concludes with an examination of the contemporary dialogue of American Liberalism, conservatism, and radicalism.

Prerequisite: Any Level A course.

17. *Problems of Political Analysis.* Spring 1972. Mr. Emmert.

An examination of approaches to the study and understanding of politics, particularly the historical, theological, philosophic, and scientific. Emphasis on clarifying and evaluating the different philosophical foundations of these approaches and on determining which approach is the most appropriate for the study of politics.

Prerequisite: Any Level A course and consent of the instructor.

18. *American Foreign Policy: Its Formulation and the Forces Determining Its Direction.* Fall 1971. Mr. Small.

The major theories concerning the sources and conduct of American foreign policy since World War II. Not only diplomatic, constitutional, and administrative factors but also the significance of economic and cultural forces.

Prerequisite: Any Level A course.

19, 20. *The History of Political Thought in the West from Greek Antiquity to the Present.* Fall 1971. Mr. Emmert. Spring 1972. Mr. Rensenbrink.

An analysis, through close textual criticism, of the political writings of selected thinkers of ancient Greece and Rome, medieval Europe, and modern Western civilization. Non-Western thinkers may be included. Examples of authors to

be read are Plato, Aristotle, Lucretius, Augustine, Marsiglio of Padua, Machiavelli, Hobbes, Locke, Rousseau, Hegel, John Stuart Mill, Marx, Kierkegaard, Nietzsche, Veblen, Weber, Lenin, Collingwood, Ortega y Gassett, Pareto, Sorel, Dewey, Sartre, Mao Tse-tung, Gandhi. Not all of these authors are read in a single year. Authors not listed may be read in any given year.

Prerequisite: *Government* 1 or consent of the instructor.

22. *Modernization in the Non-Western World: Politics and Social Change.* Spring 1971. SUPERVISED BY THE DEPARTMENT.

This course, given under the supervision and with the participation of the members of the department, is designed primarily by undergraduates. The undergraduate designers participate as senior members and discussion leaders. They receive independent study credit for their work; junior members of the course receive regular graded credit. Term papers read by a member of the department, and grades assigned by the department on the recommendation of the senior student members.

The focus is on sub-Saharan Africa, but other examples of modernization may be examined by interested students and discussion leaders.

This course was offered during the spring semester 1971 and is included here for the historical record.

23. *African Politics.* Fall 1971. MR. POTHOLM.

The political phenomena in sub-Saharan Africa. Emphasis on the dynamics of politics since independence, but geography, ethnicity, and history are also explored in introductory lectures.

Prerequisite: *Government* 2, 4, or 51.

30, 31. *American Constitutional Law.* Every year. Fall 1971. MR. DAGGETT. Spring 1972. MR. MORGAN.

Constitutional principles in the United States. The case method is used in the presentation of material.

Prerequisite: At least two previous courses in American government or American history.

51. *Political Analysis and the Forces of Change.* Fall 1971. MR. RENSENBRINK.

The perception and conceptualization of political forces through an examination of selected historical contexts. The

interaction of sociological, economic, and psychological factors with political formation and development.

Specifically, an introduction to the study of contemporary Black Africa (i.e., Africa south of the Sahara) with attention to Nigeria in West Africa and Tanzania in East Africa.

Enrollment limited to twenty-four freshmen.

60. *Honors Seminar.* Every fall. THE DEPARTMENT.

200. *Independent Study.* THE DEPARTMENT.

History

PRESIDENT HOWELL; ASSOCIATE PROFESSOR LEVINE, *Chairman;* PROFESSORS HELMREICH AND WHITESIDE; VISITING ASSOCIATE PROFESSOR HOLLOWAY; ASSISTANT PROFESSORS BLAND, DIETRICH, KARL, NYHUS, AND WILLMAN

REQUIREMENTS FOR THE MAJOR IN HISTORY: The major consists of eight courses approved by the department, but these eight courses need not all be in the Department of History. Each student will work out his major program in consultation with a member of the department. The program is then subject to departmental approval.

Although most courses have no prerequisites, students should note that some courses are designed as an introduction to the study of history while others presume a sophisticated level of interest and preparation. The following courses are specifically intended to introduce students to historical studies and to the broad outlines of European or American developments: *History* 1-2, 11, 20. Students with little or no background in history but with an interest in a specific period or area may wish to choose from *History* 3, 5, 6, 8, 13, 14, 17, 23, 24, 26. For students with some experience or background in the study of history or the particular subject matter the following courses are recommended: *History* 4, 7, 9, 10, 12, 15-16, 19, 21, 22, 25, 27, 28, 29. Courses numbered in the 30s are intended for advanced students (though not necessarily history majors) and require permission of the instructor to enter.

INTERDISCIPLINARY CONCENTRATIONS: Within a major in history, a number of students have constructed programs that include courses from related departments. One such concentration is in American civilization. It consists of four courses in the Department of History and at least two courses beyond the introductory

level in not more than two related disciplines. Other such programs might include courses in the history, language, and literature of a particular European country or of a particular period of time.

Work Away from Bowdoin: The department is happy to cooperate with students who wish to do a portion of their work elsewhere, within or outside an institutional setting, in the United States or abroad. Arrangements for such work should normally be started during the sophomore year.

Languages: Students contemplating graduate work in history to the doctoral level should incorporate appropriate language preparation in their undergraduate program. Usually, this means gaining a reading competence in two foreign languages.

*1-2. *History of Western Civilization from Classical Times to the Present.* Every year. Mr. Helmreich.

The fall semester considers the heritage of classical antiquity, the development of the Christian Church, the Saracenic Empire, the feudal system, the beginning of national states, the Renaissance and Reformation. In the spring semester the emphasis is on the growth of nationalism and the evolution of present-day political and social systems, the French Revolution, the Industrial Revolution, imperialism, World War I, and the interwar period.

11. *Crises in European History.* Every spring. Messrs. Howell, Karl, and Nyhus.

An introductory course, primarily for freshmen, which undertakes a study of four periods when the fabric of European society was under particular stress. Emphasis on such topics as the Investiture Controversy, the Reformation, the French Revolution, the Puritan Revolution, the Scientific Revolution. Stress on student participation through seminar-like procedures, use of source materials, consideration of conflicting interpretations, defining of historical questions, and writing of short research papers.

3. *Political, Cultural, and Intellectual History of Europe in the Classical Period.* Every other year. Spring 1972. Mr. Willman.

After an introductory survey of the ancient Near East, concentration on the classical civilizations of Greece and Rome, with most attention on the Periclean and Augustan ages. The internal development of the two societies and the

impact of each upon the wider Mediterranean world is studied largely through the eyes of contemporaries. Works of literature, art, and architecture are considered as historical documents contributing to an understanding of classical culture. Among the authors to be read are Herodotus, Thucydides, Aeschylus, Aristophanes, and Plato; Polybius, Livy, Caesar, Cicero, and Tacitus.

4. *History of Europe in the Middle Ages.* Every other year. Fall 1971. Mr. Nyhus.

   A survey covering political and social institutions as well as intellectual and cultural movements. Begins with the end of the Roman Empire but emphasizes the Carolingian period and the High Middle Ages.

5. *History of the Reformation and the Age of Louis XIV.* Every other year. Fall 1972. Mr. Karl.

   A brief study of the Reformation serves as an introduction to the political, religious, and intellectual history of Europe from the sixteenth century to the death of Louis XIV.

6. *History of the Enlightenment and the Revolutionary Era.* Every other year. Spring 1973. Mr. Karl.

   The background, course, and influence on Europe of the French Revolution and the Napoleonic Era.

7. *History of England to 1550.* Every other year. Fall 1971. Mr. Willman.

   An advanced survey of the origins of English society. Attention paid to the cultural, intellectual, social, political, and economic aspects of medieval English life in an attempt to produce a satisfactory definition of a complex and dynamic society. The growth of representative institutions and the common law is studied within this context. Concludes with the Reformation, which is interpreted as a revolutionary disruption of many of the features of medieval England. Readings include selections from medieval historians, from Bede to Froissart; other contemporary sources, such as the *Magna Charta* and More's *Utopia;* and modern works.

8. *History of England from the Sixteenth to the Eighteenth Century.* Every other year. Spring 1972. Mr. Willman.

   Emphasis on the interdependence of constitutional and social history while considering the Elizabethan age, the

prolonged revolution of the seventeenth century, and the normalization of the constitution in the eighteenth century. Concludes with the breakup of the old colonial empire and the beginnings of industrialization. Readings from Shakespeare, Bacon, Milton, Locke, Swift, Adam Smith, and Burke, among others.

9. *History of Europe from the Revolutions of 1848 to World War I.* Every other year. Fall 1971. Mr. Helmreich.

Political and social history of European states and their imperialistic expansion, ending in a detailed study of the origins of World War I.

Prerequisite: *History* 1-2, junior or senior standing, or consent of the instructor.

[10. *Recent European History.*]

12. *Renaissance Europe.* Every other year. Fall 1972. Mr. Nyhus.

A close study of the politics and culture of the period. Consideration of the historical problem of a renaissance.

13. *Reconstruction.* Fall 1971. Miss Holloway.

The United States, 1865-1880, with emphasis on black participation in government and on the "counter-revolution" that ended that participation.

14. *Race Relations in the United States Since 1865.* Spring 1972. Mr. Levine.

Consideration of prejudice, discrimination, and various types of oppression and rebellion. Influences of demographic, ideological, and economic changes. The emotional flavor of oppression and resistance. Readings include Allport, *The Nature of Prejudice;* Malcolm X, *Malcolm Speaks;* and Margaret Walker, *Jubilee.*

*15-16. *History of Russia and East Central Europe.* Every other year. 1971-1972. Mr. Helmreich.

The historic origins and development of the peoples of Russia, the Baltic States, Poland, Czechoslovakia, Austria, Hungary, the Balkans, and Turkey, ending with an analysis of Russia's present relations with its satellites.

Prerequisite: *History* 1-2, junior or senior standing, or consent of the instructor.

17. *Traditional China.* Every other year. Fall 1971. Mr. Dietrich.

China before the nineteenth century, when all Chinese believed, and most outsiders who went there agreed, that the "Middle Kingdom" was the greatest of the world's civilizations. The last millenium of traditional Chinese society: how it was organized, the ideas and values that sustained and directed it, the ways it changed over time.

18. *Modern Japan.* Every other year. Spring 1972. Mr. Dietrich.
The radical transformation of Japan since it was opened to Western influence by Perry in 1854. Consideration of the reconstruction of political relationships, changes in social patterns, economic development, and the adaptation to Western ideas.

19. *The German Problem: Thirty Years War to the Revolutions of 1848.* Every other year. Fall 1971. Mr. Karl.
Consideration of some mainstreams in German history, directed toward exploring the historical background to the "German Problem."

20. *Interpretations of American History.* Every fall. Mr. Levine.
Consideration of four or five topics, from the American Revolution to the present, all related to social change. How historians have disagreed with each other, the nature of historical inquiry, and the relationship between past and present. Readings include Hartz, *The Liberal Tradition in America;* Lowi, *The End of Liberalism;* Hamilton, *Report of the National Bank;* and Collingwood, *The Idea of History.*

21. *The United States Since 1945.* Every other year. Spring 1972. Mr. Levine.
Consideration of social, intellectual, political, and international history. Topics include the cold war; the survival of the New Deal; the changing role of organized labor; Keynesian, post-Keynesian or anti-Keynesian economic policies; the urban crisis. Readings common to the whole class and the opportunity for each student to read more deeply in a topic of his own choice.

22. *The United States and Its World Relations Since 1898.* Every other year. Fall 1972. Mr. Whiteside.
An attempt to integrate domestic history and changing relationships with the outside world. Although not a course in conventional diplomatic history, considerable attention is paid to diplomacy.

23. *History of England from 1800 to the Present.* Every other year. Spring 1973. Mr. Willman.

A survey of the cultural, intellectual, political, constitutional, social, and economic development of England. (This course represents a continuation of the sequence including *History* 7 and 8.)

24. *Modern China.* Every other year. Spring 1973. Mr. Dietrich.

The political, social, economic, and intellectual changes that transformed China between the last days of the Ch'ing empire and the present-day People's Republic.

25. *The Age of Jefferson and Jackson.* Every other year. Spring 1972. Mr. Bland.

A study based on monographs and source materials of the early national period of American history, 1789-1848. Social and intellectual currents as well as political developments are covered.

26. *The Colonial Experience.* Every other year. Fall 1971. Mr. Bland.

The origins of American civilization examined through political and intellectual history. Emphasis on the political theory and practice of the Revolutionary period.

27. *The Crisis of the Union, 1848-1877.* Every other year. Fall 1972. Mr. Levine.

A careful study from monographs and source materials of increasing sectional antagonism, the origins of the Civil War, the war itself, and attempts to solve postwar problems.

28. *The Nation Transformed.* Every other year. Spring 1973. Mr. Whiteside.

The transformation from a predominantly rural to a predominantly urban nation which took place from about 1865 to World War I. Particular stress on changing ideas.

29. *The Overseas Expansion of Europe.* Every fall. Fall 1971. Mr. Howell and Richard B. Reed, Special Collections Librarian.

Analysis of the contact between European nations and the non-Western world in the early modern period. Emphasis on the interaction of European and non-Western cultures. Detailed consideration of the development of the Latin American and Asian societies encountered by the Europeans. Con-

ducted as a seminar with an emphasis on class discussions and independent research.

Enrollment limited to fifteen.

31. *Problems in Early European History.* Every year. Mr. Bland, Mr. Nyhus, or Mr. Willman.

A close and rigorous investigation of a single period or problem in ancient, medieval, or renaissance history. In addition to critical discussion of sources and monographs, students develop aspects of the problem as research projects.

Spring 1972: *The Encounter of Medieval Europe with the Non-Western World.* Mr. Nyhus.

Prerequisite: Consent of the instructor.

32. *Problems in European History.* Every year. Mr. Howell or Mr. Karl.

A close investigation of a single period or problem in the history of early modern Europe. Following critical discussion of sources both primary and secondary, students develop specialized aspects as research projects.

Spring 1972: *The Age of Louis XV.* Mr. Karl.

Prerequisite: Consent of the instructor.

33. *Problems in English History.* Every fall. Mr. Willman.

A close investigation of a single period or problem in the history of England. Following critical discussion of sources both primary and secondary, students develop specialized aspects as research projects.

Fall 1971: *English Intellectual History, 1688-1832.*

Emphasis on the approach of important eighteenth-century thinkers to the problems of eighteenth-century society. Their concern with political problems of reform, revolution and stabilization, and with the social problems of transition from a traditional to an industrial society. Problems of religion and toleration, civil liberties, education, penology, and poverty also considered. Readings from Locke, Defoe, Adam Smith, Burke, Thomas Paine, Bentham, and Malthus, among others.

Prerequisites: Junior or senior standing; at least two relevant courses in history; government, economics, philosophy, or English; and consent of the instructor.

Fall 1972: *English Historiography.*

34. *Problems in United States History.* Every year. Mr. Levine or Mr. Bland.

A close investigation of a single period or problem in the history of the United States. Following critical discussion of sources both primary and secondary, students will develop specialized aspects as research projects.

Fall 1971: *The New Deal.* Mr. Bland.

Spring 1972: *The American Revolution.* Mr. Bland.

200. *Independent Study.* The Department.

Mathematics

Professor Christie, *Chairman;* Professor Chittim; Associate Professors Grobe and Johnson; Assistant Professors Brooks and Ward; Lecturers Mr. Curtis and Mrs. Grobe

Requirements for the Major in Mathematics: The major consists of *Mathematics* 21, *Mathematics* 13 or 22, and six courses approved by the department. The six courses, if in mathematics, must be numbered 25 or higher. Students interested in the application of mathematics to other disciplines may include quantitative courses from other departments (e.g., *Chemistry* 32, *Economics* 16, *Physics* 37). Majors are encouraged to pursue their special interests in independent study courses for credit, which, if approved, may also count as courses for the major.

Prospective majors should begin to prepare a program of study early, in close consultation with at least one member of the department. Each major is requested to submit a proposed program to the department for its approval by the beginning of his junior year. It is understood that this proposal is tentative and subject to change as the student's interests mature.

Below are listed some of the courses recommended to students contemplating various careers in mathematics.

For secondary-school teaching: *Mathematics* 25, 5 or 26, 33, 35, 36.

For graduate study: *Mathematics* 32, 35, 39, and at least one 40-level course.

For engineering and applied mathematics: *Mathematics* 22, 26, 31, 34, 37, 38.

For operations research, management science, and econometrics: *Mathematics* 26, 30, 37, 38, and *Economics* 16.

For computer science: *Mathematics* 26, 30, 35, 36.

1, 2. *Topics in Mathematics.* Every year. The Department.

The origins of mathematical problems, the nature of math-

ematical language and proof, and the purpose and applicability of abstract mathematics. One or more themes developed each semester. Recent topics have been the unity of mathematics, the theory of numbers, concepts of the calculus, basic algebraic structures, topological models and graph theory, and algorithmic mathematics.

5. *Introduction to Computer Programming.* Every fall. The Computing Center Staff.

An introduction to modern computer systems, time-sharing, and multiprogramming procedures. Program writing in Basic to solve problems in statistics and numerical analysis. Program writing in machine language and an introduction to Fortran and Cobol programming. Techniques of data storage and retrieval.

11. *Calculus.* Every fall. The Department.

Elements of differential and integral calculus.

Open to students whose secondary school courses, offered for admission to college, have included the customary training in first- and second-degree equations and inequalities, exponents and radicals, geometric progressions, the binomial theorem, the function concept, coordinate systems and graphs, and the properties of and relations among the trigonometric functions.

12. *Continuation of Course* 11. Every semester. The Department.

Additional calculus and an introduction to infinite series.

Prerequisite: *Mathematics* 11 or an equivalent preparation which includes elementary analytic geometry and a thorough course in calculus.

13. *Differential Equations and Intermediate Calculus.* Every semester. Messrs. Chittim and Johnson.

Differential equations, functions of two or three variables, and geometry in three dimensions, using vectors, matrices, and complex numbers.

Prerequisite: *Mathematics* 12 or its equivalent.

14. *Elementary Probability and Statistics.* Every semester. Mr. Brooks.

Fundamental concepts of probability: experiment, outcome, event, probability, conditional probability, independence. Combinatorics: Cartesian products, permutations and

combinations, poker, and Bernoulli trials. Random variables and expectations: the mean, variance, covariance, coefficient of correlation, the laws of averages and large numbers. Descriptive statistics. Introduction to statistical decision theory.

21. *Vector Geometry and Linear Algebra.* Every semester. Messrs. Johnson and Ward.

Vectors and matrices applied to topics in linear mathematics.

22. *Calculus of Vector Functions.* Every semester. Mr. Christie.

The differential and integral calculus of more than one variable. Vector fields; gradient, curl, and divergence; theorems of Green, Gauss, and Stokes. Applications.

Prerequisite: *Mathematics* 13, or 21 plus the equivalent of 12.

23. *Elementary Topics in Algebra.* Fall 1971. Mr. Chittim.

Real and complex numbers, determinants and matrices, theory of equations, divisors and prime numbers, congruences, quadratic residues, continued fractions.

Prerequisite: Two semesters of college mathematics or consent of the instructor.

25. *Number Theory.* Fall 1972.

A study of number theory along traditional lines. Divisors, prime numbers, and the problem of unique factorization into primes. The law of quadratic reciprocity. Topics from the following: distribution of prime numbers, finite fields, integer solutions to algebraic equations, the rational approximation of real numbers, continued fractions, diophantine geometry, and analytic number theory.

26. *Numerical Analysis.* Spring 1972. Mr. Curtis.

Basic and Fortran programming, solutions of systems of linear and nonlinear simultaneous equations, polynomial approximation, numerical differentiation and integration, solutions of systems of first-order differential equations. The PDP-10 time-sharing system will be used extensively throughout the course.

Prerequisite: *Mathematics* 13 or 21 or 23 or consent of the instructor.

30. *Linear Models.* Fall 1971 and spring 1973. Mr. Brooks.

Techniques for solving maximization and minimization problems including linear programming and its applications

to resource allocation problems, transportation problems, and the solution of 2-person zero-sum games.

Prerequisite: *Mathematics* 13 or 21 or consent of the instructor.

31. *Applied Analysis.* Every fall. Mr. Grobe.

The material for this course is selected from the following list of topics: the Taylor expansion, uniform convergence, Fourier series, the Laplace transform, general methods in ordinary linear differential equations, boundary value problems including the Sturm-Liouville equation and an introduction to partial differentiation equations.

Prerequisite: *Mathematics* 13 or 22.

32. *Advanced Calculus.* Every spring.

An introduction to the theory of functions of one real variable. Topics include definition, completeness, and topological properties of the real numbers, sequences and series of both numbers and functions, continuity, uniform continuity, differentiability, the Riemann integral, the Riemann-Stieltjes integral, and properties of some transcendental functions.

Prerequisite: *Mathematics* 39 or consent of the instructor.

33. *Foundations of Geometry.* Spring 1972.

Euclidean and non-Euclidean geometries will be treated in the framework of Klein's Erlangen program. Topics will be drawn from transformation groups and invariants, coordinatization and models, one- and two-dimensional projective geometry and subgeometries such as affine, Euclidean metric, hyperbolic, and elliptic.

Prerequisites: *Mathematics* 13, or 21 and 22, or 21 and consent of the instructor.

34. *Complex Variable.* Every spring. Messrs. Chittim and Grobe.

Analytic functions of a complex variable, differentiation and integration in the complex plane, theory of residues, conformal mapping.

Prerequisite: *Mathematics* 31 or 32 (may be taken concurrently), or *Mathematics* 13 or 22 and consent of the instructor.

35. *Introduction to Algebraic Structures.* Every fall. Mr. Johnson.

Algebraic properties of number systems. Groups, rings, fields, vector spaces, and their homomorphisms.

Prerequisite: *Mathematics* 21.

36. *Set Theory*. Spring 1973.

The set-theoretical foundations of mathematics, including equivalence and order relations, ordinal and cardinal numbers, and the axiom of choice. Although there are no formal prerequisites, the student is expected to have completed at least two years of mathematics.

37. *Probability and Statistics*. Fall 1971. Mr. Brooks.

Discrete and continuous probability with applications to standard topics in mathematical statistics: point and interval estimation, hypothesis testing, regression, and analysis of variance.

Prerequisite: *Mathematics* 12. Beginning in fall 1972 *Mathematics* 14 will also be required.

38. *Topics in Probability and Statistics*. Spring 1972. Mr. Brooks.

One or more specialized topics from probability and statistics. Topics from probability include stochastic processes and measure-theoretic aspects of probability. Topics in statistics could include statistical decision theory, sampling theory, and experimental design. Topics in applied probability theory that might be covered include queuing and inventory theory, reliability mathematics, and Monte Carlo techniques. The topics for spring 1972 will depend on the amount of material covered in *Mathematics* 37 and the interests and preparation of the student.

Prerequisite will depend upon the topic but will normally be *Mathematics* 37.

39. *Introduction to Topology*. Every fall. Mr. Christie.

Fundamental concepts of general topology: topological spaces, continuity, separation and countability axioms, connectedness, and compactness. The geometric emphasis is made more explicit, as time permits, by a consideration of mappings, fixed points, vector fields, networks and polyhedra, curves and surfaces.

Prerequisite: *Mathematics* 13 or 22.

40. *Topics in Topology*. Spring 1972. Mr. Brooks.

One or two directions in topology are pursued with a fair degree of thoroughness, e.g., homology theory, homotopy

theory, graph theory, knot theory, differential topology, additional general topology, or applications of topology.

Prerequisite: *Mathematics* 39 or consent of the instructor.

42. *Advanced Topics in Algebra.* Every spring. Mr. Johnson.

Selection made from the following topics: rings, ring homomorphisms, ideals, polynomial rings, fields of quotients, fields, field extensions, Galois theory. Rings with minimum condition, noetherian and local rings, homology theory. Noncommutative rings. Finite and infinite abelian groups, torsion, the ring of endomorphisms of a module.

Prerequisite: *Mathematics* 35.

44. *Advanced Topics in Geometry.* Fall 1972.

Content of the course varies, so as to provide the student with advanced geometrical experience from the areas of algebraic geometry, classical differential geometry, or projective and metric geometry.

Prerequisites: *Mathematics* 32, 35; or consent of the instructor.

45. *Advanced Topics in Analysis.* Fall 1971. Mrs. Grobe.

Topics include Lebesgue measure and integration and a brief introduction to Banach and Hilbert spaces.

Prerequisite: *Mathematics* 32.

200. *Independent Study.* The Department.

1971 Summer Advanced Seminar
For Graduate and Postgraduate Students of Mathematics

Professor Christie, *Director;* Assistant Professor Brooks, *Associate Director;* Professor Gian-Carlo Rota (M.I.T.); Dr. Curtis Greene (M.I.T.)

Course. *Combinatorial Theory and Applications.*

The study of combinatorial problems by methods drawn from all branches of mathematics. The main topics are enumeration theory and combinatorial geometry. The course is based on lectures by Professor Rota. Supporting sessions, including various seminars, are conducted by Dr. Greene and by numerous postdoctoral and senior members.

Colloquium. *Combinatorial Mathematics.*

Sequences of lectures on research topics by visiting lecturers F. Harary (Michigan), D. R. Fulkerson (Rand), B. Grünbaum (Washington), H. H. Crapo (Waterloo), H. S. Wilf

(Penn.), H. J. Ryser (Caltech), W. T. Tutte (Waterloo), M. Hall, Jr. (Caltech), and A. W. Tucker (Princeton).

1971 Summer Institute
For Secondary School Teachers of Mathematics

Professor Chittim, *Director;* Assistant Professor Ward; Assistant Professor Torrence D. Parsons (Pennsylvania State); Mr. Joseph F. Aieta (Weston, Massachusetts, Public Schools); Mr. James H. Faux (Greece Arcadia High School, Greece, New York)

Course I. *Elements of Complex Variables.*

The complex numbers as an extension of the real number system; geometric representations of the complex numbers; applications to geometric constructions and to the theory of equations; extension of the elementary functions to the complex domain; algebraic and transcendental functions; complex series; conformal mapping; theory of residues.

Course II. *Linear Algebra.*

An introduction to the algebra of vector spaces and linear transformations. Vector spaces, subspaces, bases and coordinate systems; linear mappings and their matrix representations, matrix algebra, systems of linear equations, determinants; equivalence, similarity, characteristic values and vectors, diagonalization, canonical forms; inner products. Special attention to the application of general concepts in two- and three-dimensional Euclidean space.

Experimental Course. *Linear Algebra.*

Given by the teacher-participants for a group of above-average high school students. Furnishes motivation for Course II by showing the connection between it and material suitable for presentation at the secondary school level. Each participant assists in the administration, organization, text-writing, or presentation of one course unit. There are twelve such course units.

1972 Summer Institute (Proposed)
For Secondary School Teachers of Mathematics

Course I. *Geometric Transformations.*

An algebraic and combinatorial treatment of Affine and Projective Geometries.

Course II. *Advanced Mathematics as Used in Secondary Schools.*
Topics selected from linear algebra, group theory, topology, geometry, real analysis, theory of numbers, and probability theory.

Experimental Course.
Taught by the teacher-participants to selected high school students. Topics will be chosen from those of Course II.

The Summer Institutes for Secondary School Teachers of Mathematics are part of a program of *sequential* institutes. Participants are secondary school teachers who have done work of superior quality as undergraduate majors in mathematics at accredited institutions and who are ready to undertake graduate studies. Successful completion of work in four Bowdoin Summer Institutes leads to the award of the degree of master of arts.

Music

Professor Beckwith, *Chairman;* Associate Professor Schwartz; Assistant Professors Brown and Caldwell

Requirements for the Major in Music: The required courses are *Music* 11, 12; 21-22; 31-32; and three semester courses chosen with the approval of the department, except that *Music* 1 does not satisfy this requirement and either *Music* 2 or 5 but not both may count. Students planning to continue the study of music in graduate school should complete the theory sequence through *Music* 14 and demonstrate facility at the keyboard. Any student planning to major in music should take *Music* 11, 12 by the sophomore year if possible.

The departmental offerings and the requirements for the major in music are so designed that a very broad course of study is possible, well within the liberal arts tradition. It is also possible to follow more specialized programs, with emphasis on theory, history or applied music, if further professional study is contemplated.

All students majoring in music are expected to participate in at least one performing ensemble which rehearses weekly.

1. *Introduction to Music.* Every fall. Mr. Caldwell.
For students with little or no previous training in music. Ability to read music or play an instrument is not necessary. The essentials of music—sound and time—are studied as

they have been used in different periods and in the context of musical forms. Listening materials are drawn from a variety of sources: early Western music, Western music from the baroque through romantic eras, twentieth-century music, and music of non-Western cultures.

2. *Contemporary Music.* Every spring. Mr. Caldwell.

Beginning with the major composers of the turn of the century, such as Debussy, Mahler, and Ives, the course examines the important trends before 1950 (impressionism, neoclassicism, and the twelve-tone technique) and more recent developments in electronic, serial, indeterminate, and "theater" music. Ability to read music is not required, and much of the course is devoted to aesthetic and stylistic problems and their relation to more traditional practices.

3, 4. *The History of Black Music.* 1971-1972. Mr. Brown.

Beginning with the music of West Africa, the development of black music from colonial times to the present. All phases of black music are considered briefly through lectures, listening, and selected readings.

[5. *Electronic Music.*]

11, 12. *Elementary Materials of Music.* Every year. Mr. Beckwith.

Elementary harmony, counterpoint, ear training, and analysis, primarily of eighteenth- and early nineteenth-century music. Some composition in free style, as well as an elementary study of different approaches to the organization of sound and time from about 1600 to the early twentieth century. There are three class hours plus two laboratory hours weekly.

13, 14. *Advanced Materials of Music.* Every year. Mr. Beckwith.

A continuation of *Music* 11, 12 with the addition of strict composition. There are three class hours plus two laboratory hours weekly.

Prerequisite: *Music* 11, 12 or equivalent.

*21-22. *Music History and Literature.* 1971-1972. Mr. Caldwell.

Intended primarily for majors in music, but open to other qualified students. The ability to read music is required.

Prerequisite: *Music* 11, 12 (previous or concurrent), or equivalent.

24. *Orchestration.* Spring 1973. Mr. Schwartz.

Transcription, arrangement, and free composition for ensembles of stringed, woodwind, and brass instruments, voice(s) and piano, the primary aim being that of effective instrumentation. Intensive study of orchestral and chamber scores, drawn from the music literature.

Prerequisite: *Music* 11, 12 or equivalent.

26. *Composition.* Spring 1972. Mr. Beckwith.

Free composition for the ensemble combinations cited previously in *Music* 24, with the emphasis upon creative work in the more traditional forms (rondo, variation, sonata-allegro) and a variety of experimental techniques.

Prerequisite: *Music* 11, 12 or equivalent.

*31-32. *Form and Analysis.* 1972-1973. Mr. Caldwell.

A year course in the study of form and composition technique, intended primarily for majors in music.

Prerequisite: *Music* 11, 12, or 21-22, or equivalent.

*51-52. *Applied Music.* Every year.

A study of the technique and literature for a chosen instrument. One hour of private instruction a week (fifteen hours a semester) and weekly ensemble classes. The student is expected to spend at least one hour a day working on his chosen instrument, apart from additional research and ensemble classes. The student will be expected to perform publicly or before the department at the end of each semester.

The course is intended to permit a student to continue study on an instrument in which he has already demonstrated proficiency. Only four semester course credits in *Applied Music,* however, may count toward the degree.

Instruction will be available for most orchestral instruments, guitar, piano, organ, and voice. Fee: $90 each semester.

Prerequisite: Consent of the department.

Instructors: Charles Anderson (trombone), Anthony Boffa (guitar), Eloise Caldwell (voice), Donald Curry (bassoon), William Eves (piano), Stephen Kecskemethy (violin), Roger Nye (voice), Calvin Torrey (trumpet). Others as needed.

53, 54. *Continuation of Course 51-52.* Every year.

55, 56. *Contemporary Improvisation Ensemble.* 1971-1972, Mr. Brown.

The problems of improvisation in contemporary music

with some emphasis on jazz, with heavy emphasis on applied improvisation. Enrollment to some extent is limited to students who play instruments.

Prerequisite: Consent of the instructor.

200. *Independent Study.* The Department.

1971 Summer School of Music

Professor Beckwith, *Director;* Lewis Kaplan, *Music Director* (violin and viola); Jonathan Abramowitz (cello); Eric Graf (flute); Lloyd Greenberg (clarinet); Walter Ponce (piano)

The curriculum is designed to develop the musicianship, technique, and sense of style of young preprofessional instrumentalists. The program consists of an individually designed schedule of private instruction, chamber ensemble coaching and rehearsals, master classes, and performances at the student recitals.

Instrumental students devote proportionally more time to their individual studies, while chamber music students devote proportionally more of their time to ensemble work and do not receive as much private instruction.

Upon request, credit, equivalent to one semester course, is granted.

1972 Summer School of Music (Proposed)

See announcement for 1971 Summer School of Music.

Philosophy

Professor Pols, *Chairman;* Professor McGee; and Assistant Professor Sherman

Requirements for the Major in Philosophy: The major consists of six courses approved by the department. The six must include 11, 12; at least one from the group 21, 23, 24; and 31. *Philosophy* 1 may not be counted for the major.

1. *Introductory Seminars.* Every semester.

Open primarily to freshmen, this course is in three seminar sections, each devoted to a separate topic. Enrollment limited to fifteen a section. Upperclassmen are admitted with the consent of the instructor, but freshmen are given priority

for the available places. Topics are changed from time to time but are restricted in scope and make no pretense at being an introduction to the whole field of philosophy. They are in all cases topics in which contemporary debate is lively and as yet unsettled and to which contributions are being made by more than one field of learning. (Although the course may be taken more than once with a changed topic, in the spring priority is given to freshmen who did not take the course in the fall.)

a. *Rationalism and Romanticism.* Fall 1971. MRS. SHERMAN.

An examination of two views which are often held to be opposed. The first is that man's highest achievement and greatest freedom lies in learning to discipline and order his thought about himself and the world so that it reveals a universal, nonpersonal pattern. The second is that man should strive for maximum self-expression, the exploitation of his individuality, and the articulation of a unique, purely personal response to the world. Both historical and contemporary expressions of these views are discussed.

b. *What Is Humanism?* Fall 1971. MR. MCGEE.

Discussion of a view of the nature of human being and of the human situation that is under attack in the current social revolution. Texts chosen from the following: Aeschylus, *Prometheus Bound, Oresteia;* Sophocles, *Antigone;* Aristophanes, *Lysistrata;* Plato, "Death of Socrates," *Republic;* Aristotle, *Ethics, Politics;* Cicero, *On Duties;* Castiglione, *The Courtier;* Swift, *Gulliver's Travels;* Johnson, *Rasselas;* Kolakowski, *Towards a Marxist Humanism; Action Program of the Communist Party of Czechoslovakia,* April 1968.

c. *Mind and Body.* Spring 1972. MR. POLS.

An examination of the contemporary controversy about the nature of the mind. Materialistic, behavioristic, and other "reductionistic" claims that intelligence can be understood in terms of neural physiology and "intelligent" machines (computers and similar automatons) are contrasted with claims that consciousness plays an indispensable role in human intelligence and cannot be exhaustively understood in terms of the machine image. Scientific and philosophical arguments on both sides of the question are examined, and the relevance of the controversy to the current cultural crisis is brought out.

3. *Logic and Formal Systems.* Fall 1971 and fall 1973. Mrs. Sherman.

   Treatment of the principles of valid inference. After a consideration of the traditional approach, including the syllogism, modern techniques for representing arguments and logical truths are presented. A survey of the structure of deductive systems and their use in science is then made.

4. *Logic and the Limits of Language.* Spring 1973 and spring 1975. Mr. McGee.

   Recognition of principles implicit in ordinary English is achieved through individual practice in searching for meanings and estimating evidence, in distinguishing demonstration from mere assertion and plausible persuasion, in constructing valid arguments and trying to follow the ways of paradox, in testing differences between expressions of experience and claims to knowledge. This practice goes beyond the performance of exercises set for the course to a kind of field-work in ordinary language, each student analyzing and evaluating examples of discourse he has collected from a variety of outside sources.

5. *Introduction to Twentieth-Century Existentialism.* Spring 1972 and spring 1974. Mrs. Sherman.

   Designed for those who have no previous background in philosophy but who want to understand the ethical and metaphysical themes that underlie existentialist literature, psychology, and political thought. Concentration will be on Heidegger, Sartre, and Camus. The central theme is the role of the concept of nothingness in these writers and the way it affects such notions as self, anxiety, absurdity and death, and authenticity. If time permits, attention is given to some other writers, such as Unamuno, Jaspers, Ortega y Gasset, Merleau-Ponty, Gabriel Marcel, and Iris Murdoch.

6. *Literature as Philosophy.* Spring 1973 and spring 1975. Mr. McGee.

   After a presentation of the explicitly philosophical background of the literary works to be studied, the philosophic life-attitudes expressed in them are examined to determine their adequacy as philosophy and their relevance to conduct. Maximum student participation is sought, and during much of the course seminar techniques are employed. The literature varies from time to time but always includes one

major contemporary work and one major older work. In 1973 some of the following authors will be studied: LeRoi Jones, James Baldwin, Beckett, Camus, Gide, Kafka, Pirandello, James, Mann, Woolf, Dostoevski, Lucretius, Dante, and Goethe.

11. *Major Philosophers of the West: Beginnings to Christianity.* Every fall. Fall 1971. Mr. Pols. Fall 1972. Mr. McGee.

The sources and prototypes of Western thought. Concentration on Plato and Aristotle, but some attention is given to the pre-Socratic philosophers who influenced them and to the Stoics and Epicureans. Medieval philosophy is more briefly considered, to show the interaction of Christianity and Greek thought.

12. *Major Philosophers of the West: Renaissance to Idealism.* Every spring. Spring 1972 and spring 1973. Mrs. Sherman.

Some attention given to the philosophic grounds of the scientific revolution and to the intellectual and moral response the new scientific view of the world evoked from the philosophers. Reading in five or six of the following: Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.

Prerequisite: *Philosophy* 11.

21. *Morality and the Individual.* Fall 1972 and fall 1974. Mr. McGee.

Various types of answers to the questions "What is right for me to do?", "What ought to be done?", and "What is the good for man?" are traced to their philosophic bases in historical and contemporary sources. The justification these bases provide is critically discussed and some possible meanings of statements used to answer questions in morals are made explicit and compared.

Prerequisite: *Philosophy* 11, 12.

23. *Theory of Knowledge.* Fall 1971 and fall 1973. Mr. McGee.

Some of the principal problems in and about the structure and scope of human knowledge: meaning and truth; the relations of a priori to empirical truths; types of inference; problem solving; the limits of science.

Prerequisite: *Philosophy* 11, 12.

24. *Metaphysics.* Spring 1972 and spring 1974. Mr. Pols.

A study of the claim that man can achieve knowledge of ultimate reality and found his own self-knowledge upon it; of the counterclaim that knowledge is restricted by its nature

to science and to the commonsense world; and of contemporary attempts, by a radical reexamination of the nature of man's reason, to reassert wider claims for it. The significance of this whole dispute for our conception of human nature is central to the course. Substantive metaphysical issues with an important bearing on the problem of human nature, such as time, free will, and mechanistic *vs.* teleological explanation, accordingly receive especial attention. The reading is largely contemporary.

Prerequisite: *Philosophy* 11, 12.

31. *Advanced Seminars in Philosophy.* Every semester.

A study of some one major philosopher, or of two related philosophers, or of some important philosophical problem or movement. This course can be repeated with credit.

Fall 1971. *Hegel and Contemporary Idealism.* Mr. Pols.

A reading of Hegel's *Phenomenology of the Spirit,* followed by a consideration of Hegel's influence on such twentieth-century figures as Husserl and Sartre.

Spring 1972. *Wittgenstein.* Mr. McGee.

Prerequisite: *Philosophy* 11, 12.

200. *Independent Study.* The Department.

Physics and Astronomy

Associate Professor Hughes, *Chairman;* Professors Jeppesen and LaCasce; Associate Professor Turner; Assistant Professor Bohan; Lecturer and Research Associate Mr. Wing

Requirements for the Major in Physics: The student who majors in physics should plan his total program carefully. A major student who intends to do graduate work in physics or engineering should take *Physics* 31, *Physics* 32, and at least one more course at the upper level. In addition to the required courses, he should consider *Mathematics* 34 and another semester of chemistry. A major student whose interest is in an interdisciplinary area will also need to plan his program carefully. A program in biophysics should include courses in organic chemistry and biology; geophysics and oceanography should include courses in physical chemistry and astronomy. The major student interested in a career in secondary school teaching should seek a broad base in science courses as well as the courses necessary for his teacher's

certificate. For a career in industrial management, some courses in economics and government should be included.

In any case, six semester courses above the level of *Physics-Chemistry* 17, 18, not including *Physics* 200, are required. Students interested in an interdisciplinary area may, with permission, substitute a course in another department.

1. *Planetary Astronomy.* Every fall. Mr. Hughes.

   A qualitative, nonmathematical discussion of the physics and astronomy of the solar system. Topics discussed include mechanisms of formation of the solar system; the age of the system; the nature and origin of the moon; the properties of the planets and the earth as a planet, with an emphasis on meteorology.

2. *Stars and Stellar Systems.* Every spring. Mr. Hughes.

   A qualitative, nonmathematical discussion of the nature of stars and galaxies. Topics discussed include stellar structure and stellar evolution, the properties of galaxies, the expansion of the universe, the nature of quasi-stellar objects, and the principal cosmological theories.

3. *Physics of the Twentieth Century.* Every fall. Mr. Bohan.

   A presentation of the experimental and theoretical developments that have occurred in physics during the last eighty years and a discussion of how these developments have affected society and other areas of knowledge.

11. *General Physics.* Fall 1971 and fall 1972. Messrs. LaCasce and Turner.

    Aims at an appreciation of the basic physical nature of the universe. The concepts of space, time, and energy as viewed by Newton and Einstein are examined and related to the motion of particles.

    Prerequisite: Concurrent registration or previous credit in *Mathematics* 11.

12. *Fields and Quantum Phenomena.* Spring 1972 and spring 1973. Messrs. LaCasce and Turner.

    The nature of fields is illustrated by the theory of electricity and magnetism. The study of particles includes the quantization of radiation and the search for the ultimate constituents of matter.

    Prerequisite: *Physics* 11 or its equivalent.

    Physics 11, 12 are not open to seniors and students with credit in *Physics-Chemistry* 17, 18.

17. *Physics. The Properties of Matter* I. Every fall. Messrs. Butcher (Chemistry), Hughes (Physics), and Wing (Physics).

A discussion of the fundamental laws governing the behavior of matter, including electricity, thermodynamics, and chemical kinetics. This course, together with *Chemistry* 18, constitutes the introductory program for students planning advanced work in science.

Prerequisite: Concurrent registration or previous credit in *Mathematics* 11. Not open to those with credit for *Physics* 11, 12 or *Chemistry* 11.

18. *Chemistry. The Properties of Matter* II. Every spring. Messrs. Butcher (Chemistry), Hughes (Physics), and Wing (Physics).

Continuation of *Physics* 17.

Prerequisites: *Physics* 17 and concurrent registration or previous credit in *Mathematics* 12. Not open to those with credit for *Physics* 11, 12 or *Chemistry* 11.

21. *Theoretical Physics.* Every fall. Mr. Jeppesen.

To provide a framework for interpreting and unifying the present experimental knowledge in physics, selected areas from five great theories in physics, classical mechanics, relativity, electricity, quantum mechanics and statistical mechanics are examined. The language of the calculus is used to formulate the physical models and concepts.

Prerequisites: *Physics-Chemistry* 17, 18 or *Physics* 11, 12 and previous credit or concurrent registration in *Mathematics* 13.

22. *Continuation of Course 21.* Spring 1973. Mr. Bohan.

Prerequisite: *Physics* 21.

23. *Electronic Circuits.* Every fall. Mr. Turner.

Linear network theory, including the analysis of DC and AC circuits, both passive and active, and the principles of feedback. Laboratory work stresses the fundamentals of electronic instrumentation and measurements. Additional topics selected from the following: behavior of electron tube and semiconductor devices, transients in linear circuits, diode circuits, and rectifiers, Fourier series, modulation and demodulation, pulse and digital circuits, energy conversion.

Prerequisites: *Physics* 11, 12 or *Physics-Chemistry* 17, 18; and *Mathematics* 12.

24. *Solid State Electronics.* Every spring. Mr. Turner.

Quantum theory and statistical mechanics are used to explain the transport properties of solids and junctions

between solids, leading to a deeper understanding of the behavior of transistors and integrated circuits. General principles of transistor amplifier circuits and linear integrated circuits are presented and the student is introduced to binary and logic circuits, including digital integrated circuits and modern computer circuitry. Laboratory exercises with linear amplifiers and digital circuits.

Prerequisite: *Physics* 23.

25. *Topics in Physics.*

Investigation into an area of interdisciplinary work.

Fall 1971. *Physical Oceanography.* Mr. LaCasce.

The aim is to provide a feel for the scope of physical oceanography. Among the topics to be covered are tidal theory, surface and internal waves, the heat budget and its relation to the oceanic circulation. Some attention to the problems of instrumentation and the techniques of measurement.

Prerequisites: *Physics* 11, 12 or *Physics-Chemistry* 17, 18; and *Mathematics* 12.

26. *Biophysics.* Spring 1973. Mr. Hughes.

An introduction with particular attention to the effects of ionizing radiation on cells and tissues, the application of X-ray diffraction methods to biological problems, and the study of sense organs viewed as transducers of the environment. Some attention is given to historical aspects of the subject and to the development of devices such as the electron microscope.

Prerequisite: *Physics* 11, 12 or *Physics-Chemistry* 17, 18.

27. *Optical Measurement Techniques.* Fall 1972. Mr. Jeppesen.

Optical instruments and methods are used in many fields of physics and in other disciplines. An understanding of the physical principles associated with the instrumentation and techniques provides the basis for more effective measurements. A summary of geometrical optics is followed by a study of wave propagation and its relation to coherence, interference, and diffraction. The laboratory work provides experience with particular instruments or topics.

Prerequisites: *Physics-Chemistry* 17, 18 and *Mathematics* 12.

31. *Atomic Physics.* Every fall. Mr. Bohan.

Relativity and the quantum theory with applications to atomic and nuclear systems and to elementary particles.

There is a laboratory of selected modern physics experiments associated with the course.

Prerequisites: (1971) *Physics* 11, 12 and *Mathematics* 13, or consent of the instructor. (1972) *Mathematics* 13 and either *Physics* 21 or 23 or consent of the instructor.

32. *Electromagnetic Theory*. Every spring. Mr. LaCasce.

First the Maxwell relations are presented as a natural extension of basic experimental laws, then emphasis is given to the radiation and transmission of electromagnetic waves.

Prerequisites: (1972) *Mathematics* 13 or equivalent and a previous course in college physics. (1973) *Mathematics* 13 and either *Physics* 21 or 23.

34. *Optics*. Spring 1972. Mr. Turner.

The electromagnetic theory of light and the optics of crystals and metals. Quantum theory of radiation applied to atoms and molecules. Light amplification by stimulated emission. Lectures and three hours of laboratory each week.

Prerequisite: *Physics* 27.

35. *Solid State Physics*. Spring 1973. Mr. Bohan.

Crystal structure and symmetry, magnetic resonance phenomena, and transport properties in solids.

Prerequisite: *Physics* 22 and 31 or consent of the instructor.

37. *Advanced Mechanics*. Spring 1972. Mr. Bohan.

Further development of Lagrange's techniques, the introduction of Hamilton's equations, and normal coordinates. Applications to many particle vibratory systems and to other selected topics.

Prerequisite: *Physics* 21 or 22.

41. *Quantum Mechanics*. Fall 1972. Mr. Turner.

A unified introduction to the quantum theories of Schrodinger, Heisenberg, and Dirac using probability theory. Applications of these theories to explain the physical behavior of simple quantized systems.

Prerequisite: *Mathematics* 31 or the consent of the instructor.

200. *Independent Study*. The Department.

If the investigations concern the teaching of physics, this course satisfies certain of the requirements for the Maine State Teacher's Certificate.

Psychology

Associate Professor Fuchs, *Chairman;*
Assistant Professors Lively and Perlmuter; and Mr. Chapko

Requirements for the Major in Psychology: The major comprises *Psychology* 1, 4, 11, 13, 14, and two additional courses chosen from the following: *Psychology* 3, 21, 22, 23, 24, and 26.

Students who are interested in teaching may find *Psychology* 1, 11, 13, and/or 22 an appropriate combination of courses related to their teaching interest.

1. *General Psychology.* Every semester. The Department.

   The basic psychological principles, concepts, and theories. The methods of investigation in psychology. Lectures and laboratory work each week.

3. *Psychology of Personality.* Fall 1971. Mr. Chapko.

   Psychoanalytic and learning theories of normal and abnormal personality considered in relation to empirical evidence. Topics include identification, self-concepts, defense mechanisms, manifest anxiety, achievement motivation, and authoritarian personality.

   Prerequisite: *Psychology* 1.

4. *Social Psychology.* Spring 1971. Mr. Chapko.

   Social influences on the development and modification of individual behavior. Topics include attitude formation, cognitive balance, small group processes, personality development, and prejudice.

   Prerequisite: *Psychology* 1.

11. *Measurement and Statistical Method in Psychology.* Every fall. Mr. Chapko.

    An introduction to psychological measurement and applications of statistics to research in psychology. Required of majors no later than the junior year.

    Prerequisite: *Psychology* 1 or consent of the instructor.

13. *Experimental Psychology: Learning.* Every fall. Mr. Perlmuter.

    A systematic understanding and analysis of research methodology and its role in psychology. Emphasis on experimental investigation of the learning process. Laboratory work,

including the planning and execution of an original experiment of the student's own choice.

Prerequisite: *Psychology* 1.

14. *Experimental Psychology: Perception.* Every spring. Mr. Lively.

Laboratory investigation and analysis of sensory and perceptual processes in human behavior.

Prerequisite: *Psychology* 13 or consent of the instructor.

21. *Psychology of Motivation.* Every fall. Mr. Perlmuter.

A seminar in the study of the theoretical and methodological considerations concerned with motivation. Readings include Freudian psychoanalysis, S-R psychology, and cognitive dissonance.

Prerequisite: *Psychology* 1 or consent of the instructor.

22. *Theories of Learning.* Spring 1972. Mr. Fuchs.

Major contemporary theories of the learning process and their relation to individual differences in learning and maturation. The implications of the theories for educational technology are discussed.

Prerequisite: *Psychology* 1.

23. *Systematic Psychology.* Every fall. Mr. Fuchs.

The historical and theoretical backgrounds of modern psychology, especially the chief systems of psychology, including behaviorism, Gestalt theory, and psychoanalysis.

Prerequisite: *Psychology* 1 or consent of the instructor.

24. *Contemporary Theory in Psychology.* Every spring. Mr. Chapko.

A seminar in the analysis of problems and a review of current theory in contemporary psychology. Spring 1972 topic will be "Theories of Attitude and Attitude Change" and will encompass research and phenomenology relevant to formation, expression, and change in social attitudes.

Prerequisite: *Psychology* 4 or consent of the instructor.

26. *Problems in Psychology: Developmental Psychology.* Every spring. Mr. Lively.

Topics include the development of various capacities in children, such as motor, perceptual, language, and cognitive, and the development of personality and socialization. Where appropriate, such theoretical traditions as American S-R,

psychoanalytic, and the epistomological approach of Piaget are contrasted.

Prerequisite: *Psychology* 1 and one additional course in psychology, or consent of the instructor.

200. *Independent Study.* The Department.

Religion

Professor Geoghegan, *Chairman;* Visiting Professor Richmond; and Assistant Professors Long and McDermott

Requirements for the Major in Religion: The major in religion consists of any eight courses in religion approved by the department. The introductory courses, *Religion* 11 and 12, normally should be taken not later than the sophomore year.

11. *History of Religions* I. Every fall. Mr. Geoghegan.

A survey of modes of inquiry in religion and a comparative study and historical study of the major living religions of Far Eastern origin: Taoism, Confucianism, Hinduism, and Buddhism. Consideration given to some primitive and smaller religions and to a general comparison with Western religion. Lectures, conferences, and readings in basic scriptures and modern interpretations.

12. *History of Religions* II. Spring 1972. Mr. Long.

A comparative study and historical survey of major religious traditions of Near Eastern origin: Judaism, Christianity (particularly Catholicism and Protestantism), and Islam. Consideration given to a general comparison with religion of non-Western origin. Lectures, conferences, and readings in classic texts and modern interpretations of the traditions.

15. *History of Religions* V: *Hinduism.* Every fall. Mr. McDermott.

The roots of Hinduism in Vedic tradition. The development of classical and contemporary systems of Hindu religion and thought. The relationship between Hindu religious values and the wider range of India's cultural life. Consideration of ritual, practice, sects, and Hindu spiritual paths. Readings, in translation, range from some Vedic hymns to the classical philosopher-theologians (Śankara, Rāmānuja, etc.) and contemporary Hindu writings.

16. *History of Religions* VI: *Buddhism.* Every spring. Mr. McDermott.

Buddhist origins and development in India; the spread of the religion to East and Southeast Asia; and its interaction with indigenous religions. Consideration of "folk Buddhism," contemporary manifestations of Buddhism, and of such sects as Zen and Tantrism. Readings largely from the Canon and other sacred texts of Buddhism in translation.

17. *History of Religions* VII: *Religions of China.* Every fall. Mr. McDermott.

Native Chinese traditions: Shamanism, Confucianism, Taoism, "The Hundred Schools," and the cult of ancestors. Neo-Confucianism as a state cult. The Sinification of Buddhism. The contemporary religious situation in the People's Republic. Particular attention to the interaction between the "Great," or philosophical tradition, and folk religion. Readings largely from primary sources in translation, ranging from the Chinese classics to the thoughts of Chairman Mao.

21. *Hebraic and Judaic Origins.* Every fall. Mr. Long.

Hebrew literature and religion in their historical and cultural context with attention to the community which laid the foundations for Judaism. Lectures, discussions, and readings in the scriptures along with contemporary interpretations.

22. *Christian Origins.* Every spring. Mr. Long.

Christian literature and religion in their historical and cultural context with attention to the community which gave shape to Christianity. Lectures, discussions, and readings in the New Testament along with contemporary interpretations.

[23. *Biblical Literature* III: *Biblical Theology.*]

[24. *Prophetism and Religion.*]

[25. *Judaism.*]

31. *Religious Thought* I: *Ancient and Medieval Western Religious Thought.* Fall 1971 and fall 1972. Mr. Geoghegan.

The philosophy of religion and of theology—especially the central questions of the nature and existence of God, the nature and destiny of man, faith and reason, the problem of

evil, etc.—by means of a critical examination of the development of Western religious thought from its beginnings through the Middle Ages, with special attention to a contemporary restatement of the tradition and to the presuppositions, methods, conclusions, and influence of the thought of Augustine and Aquinas. Lectures, conferences, and readings in basic writings and contemporary interpretations.

32. *Religious Thought* II: *Modern and Contemporary Religious Thought.* Spring 1972. Mr. Richmond.

The philosophy of religion and Western theology—especially the central questions of the nature and existence of God, the nature of religious experience, the nature and destiny of man, etc.—by means of a critical survey of Western religious thought from the European Enlightenment to the present with special attention to the background of modern Western religious thought to the Age of Reason and the Enlightenment, and to a wide selection from the following thinkers: Kant, Hegel, Schleiermacher, Kierkegaard, Ritschl, Barth, Buber, and Bultmann. Lectures, conferences, and readings in basic writings and contemporary interpretation.

34. *Religious Thought* IV: *Methodologies in the Study of Religions.* Every spring. Mr. McDermott.

The various ways of interpreting religion as a phenomenon in human life. An analysis of the historical particularity and the structural universality of religious patterns of meaning. Selected works of such authors as Durkheim, Eliade, Freud, Jung, and van der Leeuw are considered. Illustrative material taken from traditional religions of Africa, the Pacific islands, and the American Indians.

Open to sophomores and upperclassmen, and to freshmen with the consent of the instructor.

200. *Independent Study.* The Department.

Romance Languages

Professor Geary, *Chairman;* Associate Professors Nunn (*Acting Chairman,* Fall 1971) and Thompson; Assistant Professors Brogyanyi and Carrière; Mr. Turner; and Teaching Fellows Garnier and Vargas

Requirements for the Major in French: The major consists of *French* 9, 10, and six semester courses to be chosen from *French* 11 through 20. With the consent of the department, not more than

two of these six courses may be replaced by courses of independent study. All majors are urged to elect at least one such course. Prospective majors are expected to have completed *French* 9, 10, the prerequisite for advanced literature courses, by the end of the sophomore year. Majors who plan to attend graduate school or to teach should take *French* 5, 6. Students who intend to qualify for junior year programs in France should complete *French* 5, 6, and 9, 10, by the end of the sophomore year.

French

*1-2. *Elementary French.* Every year. Mr. Brogyanyi.

Emphasizes spoken French as a basis for further study in reading, writing, and speaking the language. Three class hours a week and regular language laboratory assignments.

3. *Intermediate French* I. Every fall. Mr. Nunn.

Intensive review of grammar, with increased emphasis on the reading of prose. Three class hours per week and regular language laboratory assignments.

Prerequisite: *French* 2 or appropriate score on a placement test set by the department at the start of the fall semester.

4. *Intermediate French* II. Every semester. Mr. Nunn.

Reading and speaking French, with emphasis on vocabulary building and increased fluency. Three class hours and one hour in small groups with the native teaching fellow, Miss Garnier.

Prerequisite: *French* 3 or appropriate score on a placement test set by the department at the start of the fall semester.

5. *Third-Year French* I. Every fall. Mr. Carrière.

Reading of selected texts, in particular the plays of Ionesco. Emphasis on literary analysis, especially through discussion in French and *explication de texte.* Three class hours per week and one hour with the French teaching fellow, Miss Garnier.

Prerequisite: *French* 4 or appropriate score on a placement test set by the department at the start of the fall semester.

6. *Third-Year French* II. Every spring. Mr. Carrière.

Aims to develop fluency in spoken and written French. Exercises in diction based on the plays of Anouilh. Introduction to stylistics through translation of selected French and English literary texts. Oral presentations with the French teaching fellow, Miss Garnier.

Prerequisite: *French* 5 or appropriate score on a placement test set by the department at the start of the fall semester.

9. *Introduction to French Literature* I. Every fall. Mr. Carrière.

Close reading of selected prose passages and poetry, along with extensive reading and discussion of outstanding works from the major genres. Beginning with the *Chanson de Roland* and a *roman courtois* (both in a modern French version), the following works are studied: selected poems of Villon, the Pléiade, and La Fontaine; plays by Corneille, Racine, and Molière; a *conte* by Voltaire, and Rousseau's *Rêveries du promeneur solitaire.*

Prerequisite: *French* 4 or appropriate score on a placement test set by the department at the start of the fall semester.

10. *Introduction to French Literature* II. Every semester. Mr. Brogyanyi.

A continuation of *French* 9. The following works are studied: selected poems of Chénier and other major poets from the romantic period to the present; representative novels of Chateaubriand, Balzac, Flaubert, Maupassant, Mauriac, and Camus; romantic and modern drama, including plays of Musset, Sartre, Ionesco, and Beckett.

Prerequisite: *French* 9 or consent of the department.

11. *French Thought and Culture* I. Every other fall. Fall 1971. Mr. Brogyanyi.

The evolution of French thought from the medieval period through the Enlightenment, with consideration of the relevant social and cultural contexts. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

12. *French Thought and Culture* II. Every other spring. Spring 1972. Mr. Carrière.

A continuation of *French* 11, with emphasis on the romantic and decadent movements, positivism, Bergsonian philosophy, surrealism, and existentialism. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

13. *French Poetry* I. Every other fall. Fall 1972.

Critical study of poetic practice and close analysis of texts from the Middle Ages to the romantic period. Emphasis on

the works of Villon, Ronsard, the baroque poets, La Fontaine, and Hugo. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

14. *French Poetry* II. Every other spring. Spring 1973.

A continuation of *French* 13, from the symbolist movement to the present. Emphasis on the works of Baudelaire, Rimbaud, Appolinaire, Valéry, and Prévert. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

15. *French Drama* I. Every other fall. Fall 1972.

Critical study of dramatic theory and practice from the medieval period to the end of the eighteenth century. Medieval farce and religious drama; development of tragi-comedy, tragedy, and comedy; the *drame bourgeois*. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

16. *French Drama* II. Every other spring. Spring 1973.

A continuation of *French* 15, from romantic to modern drama. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

17. *The French Novel* I. Every other fall. Fall 1971. Mr. Nunn.

The development of the genre during the nineteenth century, with emphasis on the works of Balzac, Stendhal, Flaubert, and Zola. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

18. *The French Novel* II. Every other spring. Spring 1972. Mr. Nunn.

A continuation of *French* 17, from realism to the *nouveau roman*. The principal authors studied are Gide, Proust, Malraux, Bernanos, Camus, and Robbe-Grillet. Conducted in French.

Prerequisite: *French* 9, 10 or consent of the instructor.

19. *Seminars on French Literature and Culture.*

Close study of a single author, period, theme, or literary movement. Following introductory lectures, main emphasis is on critical discussion and the preparation of research projects. *The course may be repeated for credit with the contents changed.*

The course is intended primarily for freshmen. Others may take it with the consent of the instructor.

Prerequisite: *French* 4 or appropriate score on a placement test set by the department at the start of the fall semester.

Fall 1971: *Introduction to the Theater of the Absurd.* Mr. Carrière.

Particular attention will be paid to the plays of Camus, Beckett, and Vian.

20. *Selected Topics in French Literature and Culture.*

Designed to offer students who have a general knowledge of French literary genres the opportunity to study in greater depth selected authors and literary movements. Conducted in French. *The course may be repeated for credit with contents changed.*

The course is intended primarily for juniors and seniors. Others may take it with the consent of the instructor.

Prerequisite: *French* 9, 10.

Spring 1972: *French-Canadian Literature and Its Cultural Background.* Mr. Geary.

Italian

[*1-2. *Elementary Italian.*]

[3, 4. *Readings in Italian Literature.*]

Spanish

*1-2. *Elementary Spanish.* Every other year. 1971-1972. Mr. Turner.

Five class hours a week, three of which are devoted to oral practice, reading, and linguistic analysis. The two remaining periods, devoted to additional oral practice in small groups, are conducted in Spanish by the teaching fellow, Mr. Vargas.

3, 4. *Intermediate Spanish.* Every year. Mr. Turner.

Four class hours a week: in the fall, three hours a week are devoted to a review of fundamentals; in the spring, there is progressively greater emphasis on the intensive study of selected literary texts, extensive reading outside of class, and practice in writing. The fourth class hour is devoted to oral practice in small groups with the teaching fellow, Mr. Vargas.

Prerequisite: *Spanish* 1-2 or appropriate score on a placement test set by the department at the start of the fall semester.

5, 6. *Spoken and Written Spanish.* Fall and spring 1972-1973.

Intended to develop fluency and to increase the range of expression in both speech and writing. Conducted in Spanish.

Prerequisite: *Spanish* 3, 4 or appropriate score on a placement test set by the department at the start of the fall semester.

9, 10. *Readings in Spanish and Hispanic-American Literature.* Every other year. 1972-1973.

Intended to acquaint the student with some of the works of the leading authors and to develop an ability to read Spanish accurately and fluently. Some works are explained and discussed in the classroom, others are assigned for outside reading.

Prerequisite: *Spanish* 3, 4 or appropriate score on a placement test set by the department at the start of the fall semester.

11. *Selected Topics in Spanish and Hispanic-American Literature.*

Designed to provide students who have a general knowledge of Spanish literature the opportunity to study in greater depth selected authors, genres, and literary movements. Conducted in Spanish. *The course may be repeated for credit with contents changed.*

Prerequisite: *Spanish* 9, 10 or consent of the instructor.

Fall 1971: *The Latin-American Short Story.* Mr. Turner.

200. *Independent Study.* The Department.

Russian

Assistant Professor Rubin, *Chairman*

*1-2. *Elementary Russian.* Every year.

Emphasis on the acquisition of language skills through imitation and repetition of basic language patterns; the development of facility in speaking and understanding simple Russian.

3, 4. *Intermediate Russian.* Every year.

A continuation of *Russian* 1-2. Concentration on maintaining and improving the student's facility in speaking and understanding normal conversational Russian. Most of this course is conducted in Russian.

Prerequisite: *Russian* 1-2.

5, 6. *Advanced Russian.* Every year.

Intended to develop the ability to read Russian fluently by combining selected readings in Russian literature with a systematic analysis of Russian word-formation. Discussion, written reports, and explanation of texts exclusively in Russian.

Prerequisite: *Russian* 3, 4.

9, 10. *Special Topics in Russian.* Every year.

Intended to enable the student to utilize his knowledge of Russian as a research tool in the investigation of a particular topic. The choice of topics depends on the interests of the students. Reports and discussions exclusively in Russian.

Prerequisite: *Russian* 5, 6.

200. *Independent Study.*

Sociology

Associate Professor Rossides, *Chairman;* Professor Taylor; Assistant Professor Minister; and Mrs. Wolfson

Requirements for the Major in Sociology: The major consists of *Sociology* 1, 9, 11, and three more courses selected from among *Sociology* 3, 5, 6, 7, 8, 10, 12, 13, and 14.

1. *Introduction to Sociology.* Every semester. The Department.

The basic concepts and methods of sociology and their use in the analysis of culture, society, and personality.

3. *World Population.* Fall 1971 and fall 1972. Mr. Taylor.

A study of changes in population growth and distribution as they relate to current problems of national and worldwide importance. Consideration of historical growth, but primary emphasis on the contemporary situation. Study of three significant variables—births, deaths, and migrations. Special attention given to population growth in the developing countries.

5. *Social Control.* Spring 1972. Mr. Taylor.

Control of attitudes and behavior through such means as propaganda and censorship, reward and punishment, education and indoctrination. Special emphasis on mass communications.

Prerequisite: *Sociology* 1.

6. *The Urban Community.* Fall 1971. Mrs. Wolfson.
The structure and functioning of the urban community in different cultural contexts and at various periods in history. Emphasis on the position of the urban community within the larger society and the social and cultural changes it undergoes within these larger entities.
Prerequisite: *Sociology* 1.

7. *Criminology.* Spring 1972. Mr. Taylor.
A survey of contemporary thought regarding the causes of crime, the treatment of offenders, and the techniques of crime prevention. Field trips to state institutions.
Prerequisite: *Sociology* 1.

8. *Minority Groups.* Fall 1971. Mr. Taylor.
A descriptive and analytical study of intergroup relations, concentrating on problems of race, discrimination, and prejudice. Although major emphasis is on the Negro minority in the United States, other interracial and intercultural contacts are considered for comparative purposes.
Prerequisite: *Sociology* 1, 10 or *Government* 3.

9. *Social Theory.* Fall 1971 and fall 1972. Mr. Rossides.
A critical consideration of some important theories of the nature of human behavior and society. Though attention is given to historical developments, the course concentrates on the great formative thinkers of "contemporary" sociology (late nineteenth century to the present).
Prerequisite: *Sociology* 1.

[10. *Introduction to Anthropology.*]

11. *Research Methods in Social Behavior.* Spring 1972. Mrs. Wolfson.
The methodological principles and problems in the scientific investigation of human behavior. Topics include: the relationship of theory and method; experimental, laboratory, and survey designs and techniques; data collection and analysis; and interpretation and presentation of results. A survey of research from various fields in the social sciences illustrates the various uses and misuses of social research methods. The purpose of the course is to provide the student with the preparation needed to evaluate and use research results, and to prepare him for independent research activity.
Prerequisite: *Sociology* 1.

12. *Organizational Behavior.* Fall 1972. Mr. Minister.
This course deals with certain basic organizational forms. The objective is the description and analysis of the social conditions under which organizations are effective or ineffective in solving problems. The analysis sought is one suitable for application to groups of all types and sizes.
Prerequisite: *Sociology* 1.

13. *Social Stratification.* Spring 1972 and spring 1973. Mr. Rossides.
The systems of stratification in various types of communities and societies with emphasis on the United States. Major topics: the classic theories of social stratification (e.g., Marx, Weber, Pareto); important empirical analyses; and current research and theory.
Prerequisite: *Sociology* 1.

[14. *Social Psychology.*]

200. *Independent Study.* The Department.

Speech

Mr. Bennett, *Acting Chairman*

1. *Communication.* Every semester.
Through emphasis on performance, the student learns to evaluate and meet the demands of verbal and nonverbal contemporary communication situations. Emphasis on the entire context of the communicative situation, including audience analysis, effective listening, group dynamics, and interpersonal communication.

5. *Persuasive Communication.* Spring 1972.
The theory and methods of influencing human behavior. Emphasis on audience analysis combined with persuasive speaking in a variety of communication situations. Propaganda and brainwashing are examined.
Prerequisite: *Speech* 1 or consent of the instructor.

6. *Topics of Argumentation.* Every semester.
The use of logic, evidence, and research in the decision-making process. The objective is to suggest methods of analysis most useful in determining the "best" solution out of multiple alternatives. Activities include readings coordinated

with lecture-discussion and controlled student experience. Topics rotate among logic, evidence, and research.

Prerequisite: Any speech course, experience in forensics, or consent of the instructor.

[7. *Oral Interpretation of Literature.*]

8. *Readers Theater.* Mrs. Minister.

A workshop for the purpose of producing ensemble oral interpretation of dramatic texts and selected poetry and prose. Attention on the problems of selecting literature for several types of audiences, arranging and editing programs, placing the readers, and determining the appropriate suggestion of costume and other visual elements.

This course was offered during spring 1971 and its description is included here for the historical record.

200. *Independent Study.*

Interdepartmental Courses

[1. *The Urban Crisis.*]

2. *Case Studies in Natural Science.* Spring 1972. Members of the Science Departments.

The tactics of scientific investigation as applied to areas of research interest of the faculty members taking part. Reading of the approximate level of *Scientific American* and laboratory exercises or demonstrations, depending on the exact topic under consideration.

The course will be open to about twenty students with preference given to freshmen.

51. *Environmental Studies: The Androscoggin River, A Case History.* Fall 1971. Mr. Huntington (Biology), coordinator.

An upper-level course designed to bring the student into contact with environmental issues in a problem-solving, multidisciplinary framework. The Androscoggin basin will be studied from several viewpoints—historical, physical, biological, economic, and political. The aim will be to weigh alternatives for its development and to work out programs of action toward desirable alternatives. The coordinator will arrange weekly seminars which will explore background material relevant to decision-making from the perspective of

specific disciplines. These will alternate with talks given by specialists and with field trips. In addition, students will undertake projects of a practical orientation, either individually or as teams.

Prerequisite: Open to juniors and seniors with permission of the coordinator.

Senior Seminars

Fall Semester 1971

1. *Science, Technology, and Society.* Messrs. Abrahamson and Mayo.
2. *Observation and Meaning.* Mr. G. R. Anderson.
3. *Protest Rhetoric.* Mr. Bennett.
4. *Popular Literature.* Mr. H. R. Brown.
5. *Music in African Life.* Mr. M. Brown.
6. *The American Indian.* Rev. John P. Davis, Director, Bowdoin Newman Apostolate.
7. *Levels of Consciousness.* Mr. Fuchs.
8. *The Context of Mathematics.* Mrs. Grobe.
9. *Nazi Germany: Why?* Mr. Karl.
10. *Modern American Liberalism.* Mr. Levine.
11. *Religion and Contemporary Society.* Mr. Long.
12. *Structure of the Oceans.* Mr. J. M. Moulton.
13. *Aspects of Primitive Art.* Mr. Stoddard.
14. *Anglo-American Maritime History.* Robert G. Albion, Gardiner Professor of Oceanic History and Affairs Emeritus, Harvard University.

Spring Semester 1972

20. *Fifth-Century B.C. Athens.* Mr. Ambrose.
21. *William Faulkner.* Mr. Burroughs.
22. *Thomas Mann.* Mr. Cerf.

23. *Four Approaches to Education.* Mr. Cowing.

24. *Text Manipulation and List Processing.* Mr. Curtis.

25. *The Supreme Court and the "Fundamental" Freedom.* Mr. Daggett.

26. *The Comedies of Molière.* Mr. Geary.

27. *Law and the Poor.* George H. Glover, Jr., Brunswick attorney.

28. *Power Generation and Distribution.* Messrs. Hughes and Shipman.

29. *Continental Drift.* Mr. Hussey.

30. *Town Government.* Mr. Libby.

31. *The Politics of Environmental Change.* Messrs. Morgan and Potholm.

32. *Socialist Economic Development: Cuba and Tanzania.* Mr. Vail.

Reserve Officers' Training Corps

THE Reserve Officers' Training Corps at Bowdoin offers a voluntary curriculum of military science to eligible students. The curriculum consists of theoretical and practical instruction with particular emphasis on leadership development, which is specifically designed to give the student "on-campus" training and experience in the art of organizing, motivating, and leading others. It includes instruction to develop self-discipline, physical stamina, and bearing—qualities that are an important part of leadership and that contribute to success in any kind of career. Classes are presented by the Military Science Unit as provided for by an approved Core Curriculum Program.

The objective of the curriculum offered is to produce junior officers who by their education, training, and inherent qualities are suitable for continued development as Reserve or Regular officers in the Army of the United States.

The Reserve Officers' Training Corps Unit at Bowdoin is an Army General Military Science Unit. The curriculum includes instruction in subjects common to all branches of the Army, and further provides for college-taught academic subjects to be chosen by the student during all four years. Upon successful completion of the program and graduation from college, a student is eligible for appointment as a second lieutenant in one of the branches of the United States Army. The branch assignment of the student is based on his individual choice, background, aptitude, and the needs of the Army at the time he is commissioned. Selected Advanced-Course students who apply may be offered commissions in the Regular Army.

The Senior Division ROTC Program at Bowdoin is divided essentially into two major phases:

(1) The Basic Course—covering the first two academic years. Enrollment for freshmen and sophomores involves one hour of classroom instruction weekly with a strong emphasis on leadership training. Satisfactory completion of the freshman course is a prerequisite for advancement to the second year of the Basic Course. Previous military training or satisfactory completion of accredited secondary school ROTC is accepted in lieu of first-year work in Military Science. The student must be physically qualified. Basic-Course students are eligible for deferment from military service under the Universal Military Training and Service Act upon their application.

(2) Two-Year ROTC Program—replacing the first two aca-

demic years. For students who prefer, attendance at a basic six-week summer training period after the sophomore year is acceptable in place of the Basic Course required of students in the traditional Four-Year Program. This summer camp is in addition to the summer camp required of all Advanced-Course students.

(3) The Advanced Course—covering the third and fourth academic years. Successful completion of the Basic Course (or successful completion of the basic summer camp after the sophomore year), application by the student, and selection by the Military Science Unit are prerequisites for enrollment. This course involves two hours of classroom instruction weekly during the junior and senior years. Students receive subsistence of approximately $50 a month while they are enrolled in the Advanced Course, except for the period they are at ROTC summer camp, when a different scale applies.

Between the third and fourth years, students attend a six weeks' advanced summer camp at an Army installation. During the period at summer camp the students are paid approximately $325, including travel pay at six cents a mile to and from summer camp. Each student receives a total of approximately $1,200 during the two years of the advanced course. Advanced-Course students are deferred from military service under the Universal Military Training and Service Act.

Uniforms, textbooks, and necessary supplies are provided at no expense to students enrolled in the Basic and Advanced Courses.

The Army offers a limited number of one-, two-, and three-year full scholarships to outstanding students enrolled in the Four-Year ROTC Program. Criteria are set by the Department of the Army and announced by the director of the ROTC Program in December of each year. See page 54 for further information regarding ROTC Four-Year Scholarships.

Preparatory training in college followed by active service as a commissioned officer gives the individual as a student, and later as a graduate, maximum leadership and management experience of a type which will prove invaluable to him in his future executive, professional, or business career.

Military Science

LIEUTENANT COLONEL KATTAR, *Director;* MAJORS O'BRIEN AND SPENCER; CAPTAINS MONETTE AND SHAW

*11-12. *First Year Basic Course.* Every year.

An introduction to the historical growth and the organiza-

tion of the Army and ROTC, and the Armed Forces' mission, functions, and responsibilities. Introduction to management of military resources, fundamentals of leadership, and the development of certain characteristics of leadership through progressive training in the exercise of command. This phase of military science continues in steps of increasing responsibility through the entire four-year program.

*21-22. *Second Year Basic Course.* Every year.

The course introduces the student to maps and aerial photographs, examines the fundamentals of military operations and small unit tactics, and continues to develop the techniques of leadership.

Prerequisite: *Military Science* 11-12.

*31-32. *First Year Advanced Course.* Every year.

A study of the factors which affect human behavior, methods of accomplishing motivation, and the application of the principles of leadership; a study of military techniques of instruction; advanced work in small unit tactics and communications; and a study of counterinsurgency operations.

Prerequisite: *Military Science* 21-22 or credit for completion of six weeks of basic summer camp.

ROTC Advanced Summer Camp: Students enrolled in the Advanced Course are required to attend a summer camp of six weeks' duration upon completion of MS 32. Camp training is essentially on the individual and small-unit level, with a student receiving experience in the performance of tactical, technical, and administrative duties in the field. Intensive training will be conducted with emphasis on the development of leadership. Camp is conducted at and supported by a major military installation. Exact location will be announced.

*41-42. *Second Year Advanced Course.* Every year.

A study of command and staff organization and the theory and dynamics of the military team (advance tactics); the position of the United States on the contemporary world scene; administration and logistical management; the concept of military justice in the Armed Forces; and a survey of applied leadership and military management.

Prerequisite: *Military Science* 31-32.

The Library

THE strength of a college library derives from its collections of books and other library materials and from the staff to make the library useful to students. Bowdoin's Nathaniel Hawthorne-Henry Wadsworth Longfellow Library is exceptionally strong in its reputation as a college library. Totaling more than 400,000 volumes, its collections have been built up over a period of more than 170 years and include an unusually large proportion of distinguished and valuable volumes. Similarly distinguished has been its roster of librarians of the College, a list that includes John Abbot, Calvin Stowe, Henry Wadsworth Longfellow, and George T. Little. Its present full-time staff includes a dozen professional librarians and about an equal number of library assistants.

The first books that belonged to the library—a set of the Count Marsigli's *Danubius Pannico-Mysicus,* given to the College in 1796 by General Henry Knox (who had been a bookseller in Boston before he achieved fame as George Washington's chief ordnance officer)—are still a part of its collections. In the early decades of the nineteenth century Bowdoin's library, largely because of extensive gifts of books from the Bowdoin family and the Benjamin Vaughan family of Hallowell, Maine, was one of the largest in the nation. It has been maintained as one of the larger college libraries of the country, but its areas of growth are now defined by the curriculum of the College and restrained by the desirability of containing it as a collection to which students can have easy, and almost complete, access on open shelves. In addition to its 400,000 volumes (a count which includes bound periodicals and newspapers), the library has a collection of approximately 60,000 maps, over 2,000 photographs, and more than 300,000 manuscript items. The current annual rate of acquisition is about 14,000 volumes and the annual expenditure per student is more than $290.

The Hawthorne-Longfellow Library building was opened in the fall of 1965. The library occupies 60,000 square feet of its floor space and will eventually incorporate the 26,000 square feet presently used for the College's administrative offices. It now provides space for well over 400,000 volumes and for 538 readers (for 460 of these by individual study tables, carrels, or lounge chairs). Eventual full occupancy of the building will increase shelf capacity to 560,000 volumes and seating capacity to about 700. The College is also reserving the stack wing of Hubbard Hall, the library building of the College from 1903 to 1965, to shelve expanded book collec-

tions. Space for an additional 200,000 books is available there.

The entrance level of the building contains the portions of the library of most immediate use to its readers: the circulation desk and reserve-book shelves, the card catalog, reference books and bibliographies, current newspapers, current periodicals, periodical indexes, government documents, and two large and handsome reading areas. Study stations are conveniently dispersed on this floor as they are throughout the building.

The lower level of the library houses Bowdoin's extensive collection of bound periodicals, its bound volumes of newspapers, and its collections of microfilm and microcards. This area includes space for the library's photocopying services.

Special features of the second floor are an exhibit area and the President Franklin Pierce reading room, informally furnished and giving a broad view through floor-to-ceiling windows. In this room is a collection of paperbound books for recreational reading and a selection of periodicals received by the library for immediate use only. Near this room are more newspapers and magazines for recreational reading, a suite of listening rooms, and a room for record storage. Also on this floor are two suites of ten faculty studies each and small rooms for student typing or group study. The rest of this floor is shelving surrounded by carrels.

More shelving and carrels occupy the principal portion of the third floor. There are nine additional faculty studies on this floor. The eastern end of the third floor is the special collections suite. This includes, in addition to shelf space for Bowdoin's rare books and manuscripts and space for their use, a map room, a conference room, and a staff and faculty lounge.

The collections of the library are strong (though inevitably of varying strength) in all areas covered by the curriculum of the College, and a constant effort is maintained to see that representative publications in fields outside the current curriculum are added to the library. There is special strength in documentary publications relating to both British and American history, in the books relating to exploration and the Arctic regions, in books by and about Carlyle, in books and pamphlets about Maine, in materials about the Huguenots, in books and pamphlets on World War I and on the history of much of middle Europe in this century, and in the literary history of pre-twentieth-century France.

The reference collection includes most of the English-language encyclopedias and a good representation in original editions of major foreign encyclopedias—from two editions of the monumental eighteenth-century *Encyclopédie* of Diderot to such modern

works as the *Grand Larousse Encyclopédique, Der Grosse Brockhaus,* the *Enciclopedia Universal Illustrada Europeo-Americana,* the *Bol'shala Sovetskala Entsiklopedia,* and the *Enciclopedia Italiana de Scienze, Lettere ed Arti.* In it also are the principal national bibliographies and other major bibliographical tools. Dispersed in their proper places throughout the collections are such distinguished sets as the *Studies and Documents* of the American Institute of Musicology in Rome, Armando Cortesão's *Portugaliae Monumenta Cartographia,* the elephant-folio edition of John James Audubon's *Ornithological Biography* (his "Birds of America"), E. S. Curtis's *The North American Indian,* the *Rerum Britannicarum Medii Aevi Scriptores,* Jacques Paul Migne's *Patralogiae* (Latina), the *Scriptores Rerum Germanicum,* Reuben Gold Thwaite's *Early American Travels,* and *The Victoria History of the Counties of England.* Scholarly sets include the publications of the Camden Society, the Early English Text Society, the Egypt Exploration Society, the Geological Society of America, the Hakluyt Society, the Henry Bradshaw Society, the Huguenot Society of London, the Prince Society, the Royal Historical Society, the Royal Society, the Scottish History Society, the Scottish Text Society, and the Société des Anciens Textes Français. Of comparable, or perhaps even greater, distinction is Bowdoin's collection of more than 75,000 bound volumes of periodical publications.

Special collections in the Hawthorne-Longfellow Library comprise extensive collections of books, manuscripts, and other materials by and about both Hawthorne and Longfellow; books and pamphlets collected by Governor James Bowdoin; the private library of James Bowdoin III; an unusually large collection of late eighteenth- and early nineteenth-century books (particularly in the sciences) collected by Maine's distinguished Vaughan family; books, periodicals, and pamphlets contemporaneous to the French Revolution; the books, papers, and memorabilia of the Abbott family; an unusually fine representation of the items published in the District of Maine and in the state during the first decade of its statehood; and the books printed by the three most distinguished presses in Maine's history: the Mosher Press, the Southworth Press, and the Anthoensen Press.

Also in the special collections suite are the printed items relating to the history of the College and the chief collections of manuscript archives of the College. These include much material on Bowdoin alumni and extend far beyond a narrow definition of official college records. Here also is the library's general collection of manuscripts. Outstanding among the manuscripts are the collections of the pa-

pers of Generals O. O. Howard and Charles Howard, of Senator William Pitt Fessenden, and of Professors Parker Cleaveland, Alpheus S. Packard, Henry Johnson, and Stanley Perkins Chase; collections of varying extent of most of Bowdoin's presidents, especially Jesse Appleton, Joshua L. Chamberlain, William DeWitt Hyde, and Kenneth Charles Morton Sills; manuscripts by Kenneth Roberts, Kate Douglas Wiggin, Charles Stephens, Edwin Arlington Robinson, Elijah Kellogg, and such contemporary authors as Vance Bourjaily, John Pullen, and Francis Russell.

The books and manuscripts in Bowdoin's special collections are not treated simply as museum pieces. They are freely open to use by qualified scholars and are extensively used in introducing undergraduates—in their research projects, senior seminars, and other independent work—to the variety of research materials regularly used in the scholarly world and which they can expect to use if they continue into university graduate work.

Special collections include also the Bliss Collection of books on travel, on French and British architecture, and other fine books (miscellaneous in nature but largely relating to the history of art and architecture) which are housed in the extraordinarily handsome Susan Dwight Bliss Room in Hubbard Hall. These books are additionally distinguished by their fine bindings. The books in this room and the room itself (with its Renaissance ceiling which once graced a Neapolitan palazzo) were the gift of Miss Bliss in 1945.

During term time the library is open from 8:30 A.M. to midnight Monday through Saturday, and on Sunday from 12:00 NOON to midnight. When the College is not in session the library is not open in the evenings or on Sundays or holidays. Small departmental collections in art, biology, chemistry, mathematics, music, and physics are housed contiguous to the offices of the departments and are available for use on separate schedules of opening.

The operations of the library and the growth of its collections are supported by the general funds of the College and by gifts from alumni and other friends of the library and of the College. The library is annually the recipient of generous gifts of both books and funds for the immediate purchase of books or other library materials. It is always especially desirous of gifts of books, manuscripts, and family records and correspondence relating to the alumni of the College. The income of more than ninety gifts to the College as endowment is directed to the use of the library.

LIBRARY FUNDS

(As of January 31, 1971)

Name	*Donor or source*	*Amount*
Achorn The annual balance from the Achorn Flag Fund.	Edgar O. Achorn 1881	
Adams	William C. Adams 1897	$ 2,000
John Appleton 1822	Frederick H. Appleton 1864	10,053
James Alan Auld 1970	His family and friends	1,112
Samuel H. Ayer 1839	Athenæan Society	1,020
Benoit	A. H. Benoit Co. and the Benoit family	2,275
Alexander F. Boardman	Edith Jenny Boardman	500
Elias Bond	Elias Bond 1837	7,220
George S. Bowdoin	George S. Bowdoin	1,041
Philip H. Brown 1851	John C. Brown	2,040
Harold H. Burton 1909	Former law clerks, secretary, and friends	6,524
Warren B. Catlin A fund of $10,000 annually.	Warren B. Catlin	
Henry L. Chapman 1866	Frederic H. Gerrish	10,006
Henry Philip Chapman 1906	H. Philip Chapman, Jr. 1930	1,500
Class of 1825	Several persons	1,025
Class of 1875	Class of 1875	1,671
Class of 1877	Class of 1877	3,033
Class of 1882	Class of 1882	2,346
Class of 1888	Class of 1888	1,210
Class of 1890	Class of 1890	2,020
Class of 1901	Class of 1901	727
Class of 1904	Class of 1904	7,433
Class of 1912	Class of 1912	25,179

Name	*Donor or source*	*Amount*
Class of 1914	Class of 1914	6,237
Class of 1916 Dwight Sayward Memorial Book Fund	Class of 1916	3,730
Class of 1924	Class of 1924	2,718
Class of 1929	Class of 1929	3,035
Lewis S. Conant	Emma L. Conant	63,412
Else H. Copeland	National Blank Book Co.	500
John L. Cutler	John L. Cutler 1837	1,020
Darlington	Mrs. Sibyl H. Darlington	2,000
Miguel de la Fe	His friends	1,980
Betty Edwards Dober	Her family	1,350
James Drummond 1836	Mrs. Drummond and daughter	3,045
Edward A. Dunlap 1940	Mr. and Mrs. Edward A. Dunlap	350
Henry Crosby Emery 1892	Class of 1899	2,000
Daniel C. Fessenden	Daniel C. Fessenden	7,473
Francis Fessenden 1858	John Hubbard	10,000
John O. Fiske	John O. Fiske 1837	1,020
Melville W. Fuller 1853	Mrs. Hugh Wallace	25,000
General Fund	Several persons	2,473
Arthur Chew Gilligan	Mrs. Mary C. Gilligan	1,219
Ginn	Thomas D. Ginn 1909	2,500
Anne Davis Ginn Memorial Fund	Thomas D. Ginn 1909	166,343
William and Elizabeth Goodman	William Goodman	1,200
Albert T. Gould	Albert T. Gould 1908	1,000
Edna G. Gross	Mrs. Henry D. Minot	1,425

Name	*Donor or source*	*Amount*
Hakluyt	Robert Waterston	1,100
Roscoe J. Ham	Edward B. Ham 1922	1,307
Robert L. Happ 1953	His friends	100
Louis C. Hatch $100 annually from his estate.	Louis C. Hatch 1895	
Samuel W. Hatch 1847	Miss Laura A. Hatch	1,000
Charles T. Hawes 1876	Mrs. Hawes	2,500
Kent Jeffrey and Andrew Harriman Herrick Memorial Book Fund	John D. Herrick 1957 and Mrs. Herrick	370
George A. Holbrook	George A. Holbrook 1877	2,000
Roger Howell, Jr. 1958	James M. Fawcett III 1958	500
Thomas Hubbard	His sisters and brother	3,307
Thomas H. Hubbard	Thomas H. Hubbard 1857	123,503
Winfield S. Hutchinson 1867	Mrs. Hutchinson	33,416
Elijah Kellogg 1840	Harvey D. Eaton	1,446
President John F. Kennedy	Several persons	3,100
William W. Lawrence	William W. Lawrence 1898	7,500
Brooks Leavitt	Brooks Leavitt 1899	111,642
George Thomas and Lilly Little	Ray W. Pettengill 1905	1,000
Noel C. Little 1917	Delta Kappa Epsilon Fraternity, alumni, and friends	1,320
Charles H. Livingston	His friends	1,260
Solon B. Lufkin	Solon B. Lufkin	500
Robert H. Lunt 1942	William E. Lunt 1904 and Mrs. Lunt	1,500
William E. Lunt 1904	Mrs. Lunt	510
Frank J. Lynde 1877	George Lynde	1,487
Mabel N. Matthews	Mrs. Della Fenton Matthews	1,218

Name	*Donor or source*	*Amount*
Samuel A. Melcher 1877	Miss Lucy H. Melcher	15,988
Clara Hawkins Mellen	Her friends	1,290
William C. Merryman 1882	Mrs. Merryman	1,000
Earl Scott Miller	Karmil Merchandising Corp.	500
Gilbert H. Montague	Gilbert H. Montague	5,000
Edward S. Morse	Edward S. Morse	1,000
Alpheus S. Packard 1816	Sale of publications	500
William A. Packard	William A. Packard 1851	5,000
John Patten	John Patten	500
Daniel W. and Martha A. Pettengill	Mrs. Ray W. Pettengill	1,000
Donald W. Philbrick	Donald W. Philbrick 1917	5,650
Frederick W. Pickard	Frederick W. Pickard 1894	152,500
Lewis Pierce 1852	Henry Hill Pierce 1896	32,009
Alfred Rehder	His family	3,390
Franklin C. Robinson 1873	Clement F. Robinson 1903	5,000
Charles E. Rolfe	Andrew T. Rolfe 1935	350
Robert R. Rudy 1946	His friends and relatives	881
J. B. Sewall	Jotham B. Sewall	284
Joseph Sherman 1826 and Thomas Sherman 1828	Mrs. John C. Dodge and Mary S. S. Dodge	4,709
Jonathan L. Sibley	Jonathan L. Sibley	7,094
Sills	Faculty, alumni, and friends	25,929
Edgar M. Simpson 1894	Mrs. Margaret S. Millar	2,500
Smyth	Henry J. Furber 1861	
The annual balance of the Smyth Mathematical Prize Fund.		
Walter M. Solmitz	His friends	704
Daniel C. Stanwood	Miss Muriel S. Haynes	5,375

Name	*Donor or source*	*Amount*
Edward Stanwood	Edward Stanwood	1,270
L. Corrin Strong One-half the income of the Trust.	L. Corrin Strong Trust	
Charles C. Torrey	Charles C. Torrey 1884	1,000
Transportation Library Fund	Edward H. Tevriz 1926 and Joseph T. Small 1924	4,000
United States Steel Foundation	United States Steel Foundation	20,000
White Pine	Anonymous	10,231
Thomas W. Williams 1910	His friends and relatives	500
Robert W. Wood	Robert W. Wood 1832	1,000

The Fine Arts

THE MUSEUM OF ART

AN art collection has existed at Bowdoin almost since the inception of the College itself. The earliest acquisition of major importance was a group of 142 old master drawings bequeathed to the College in 1811 by James Bowdoin III. This was the first public collection of its kind in America and contains, among many treasures, a superb landscape by Pieter Brueghel the Elder. James Bowdoin III's collection of old master paintings came to the College two years later, in 1813.

Although various parts of the College's art collection were on view during the first half of the nineteenth century, it was not until 1855 that a special gallery devoted to the collection came into being in the College Chapel. This gallery was made possible by a gift from Theophilus Wheeler Walker, a cousin of President Leonard Woods. It was as a memorial to Walker that his two nieces, Harriet Sarah and Mary Sophia Walker, donated funds in 1891 for the erection of the present museum building, designed by Charles Follen McKim of McKim, Mead & White. Four tympana murals of Athens, Rome, Florence, and Venice by John La Farge, Elihu Vedder, Abbott Thayer, and Kenyon Cox, respectively, decorate the museum's Sculpture Hall.

The museum contains one of the most important collections extant of American colonial and federal portraits, including works by Smibert, Feke, Blackburn, Copley, Stuart, Trumbull, and Sully. Among the five examples by Robert Feke is his greatest work, the full-length likeness of *General Samuel Waldo,* generally regarded as the finest American portrait of the first half of the eighteenth century; the nine Gilbert Stuarts include the so-called "official" portrait of *Thomas Jefferson,* as well as its pendant, *James Madison.* A complete catalogue of this collection, *Colonial and Federal Portraits at Bowdoin College,* was published by the College, with a matching grant from the Ford Foundation, in 1966.

The College's collection of ancient art contains sculpture, pottery, bronzes, gems, coins, and glass of all phases of the ancient world. The most notable benefactor in this area was Edward Perry Warren, the leading collector of classical antiquities of the first quarter of the twentieth century. Five magnificent ninth-century B.C. Assyrian reliefs from the Palace of Ashurnazirpal II, the gift to the College of Henri Byron Haskell, Medical 1855, are installed in the Museum's Sculpture Hall. *Ancient Art in Bowdoin College,*

a descriptive catalogue of these holdings, was published in 1964 by the Harvard University Press.

In recent years the College has been the recipient of a Samuel H. Kress Study Collection of twelve Renaissance paintings; a large collection of Renaissance and baroque medallions and plaquettes presented by Amanda, Marquesa Molinari; a fine group of European and American pictures given by John H. Halford, of the Class of 1907, and Mrs. Halford; a collection of Chinese and Korean ceramics given by Governor William Tudor Gardiner and Mrs. Gardiner; and a collection of nineteen paintings and 168 prints by John Sloan bequeathed by George Otis Hamlin.

In the fall of 1964, the College was the recipient of the major portion of a collection of Winslow Homer memorabilia, which until that time had been in the artist's studio at Prout's Neck, the gift of Doris Homer, the wife of the artist's late nephew Charles Lowell Homer. This material, now known as the Homer Collection of the Bowdoin College Museum of Art, includes the artist's first watercolor; a significant group of letters he wrote over a period of many years to various members of his family; and a considerable quantity of photographs of Homer, his family, and of Prout's Neck.

The museum also contains fine examples of the work of such nineteenth-century and twentieth-century American artists as Winslow Homer, Eastman Johnson, Thomas Eakins, George Inness, Martin Johnson Heade, William Glackens, Marsden Hartley, Andrew Wyeth, and Leonard Baskin.

In addition to exhibitions of the permanent collection, the museum holds numerous exhibitions every year of works of art lent by institutions and private collectors throughout the United States. Among the important exhibitions organized by the museum in recent years have been *The Art of Leonard Baskin, Painting in British India, The Portrayal of the Negro in American Painting, The Salton Collection of Renaissance and Baroque Medals and Plaquettes, As Maine Goes* (photographs by John McKee of the despoilation of the Maine Coast), *Winslow Homer at Prout's Neck, The Language of the Print, Hands to Work and Hearts to God: The Shaker Tradition in Maine, Rockwell Kent: The Early Years,* and *The Medieval Sculptor.* From time to time the College lends pictures and objects in the custody of the museum to other institutions in various parts of the country. The Bowdoin College Traveling Print Collection is made available gratis to educational institutions in the State of Maine.

In 1961 the Associates program of the Bowdoin College Museum of Art was formed in order to more effectively share the facilities

of the museum with the community beyond the College. Students are encouraged to become members, at a reduced rate, so that they can take advantage of the Associates' publications and events, which include free exhibition catalogues and a film series.

DRAMA AND STAGECRAFT

Since 1903, when a group of students organized the Bowdoin Dramatic Club, the College has recognized the regular production of plays as a valuable part of the extracurricular program. The club, which changed its name to the Masque and Gown in 1909, has produced playwrights from all periods.

One of the most important activities of the club has been its encouragement of playwriting. For over thirty years the Masque and Gown has sponsored student-written one-act play contests, with cash prizes. Winners have later written full-length plays, fifteen of which have been produced on campus and four professionally in New York.

The Department of English offers courses in dramatic literature, acting, and playwriting. Informal instruction is available in acting and directing under a professional director, and in lighting and stagecraft under a professional technician, in Pickard Theater in Memorial Hall. This generous gift of the late Frederick William Pickard, LL.D., a member of the Class of 1894, includes a modern, 600-seat theater with proscenium stage, equipped with a complete system for flying scenery, an electronic lighting dimmer, and a superb modern sound system. In addition, Memorial Hall contains a fully equipped scene shop and, on the lower floor, a small open-stage theater for experimental work.

Membership in the Masque and Gown results from major work on one or minor work on two of the plays produced each season. An executive committee of undergraduates elected by the members consults with the director of dramatics to determine the program for each year, handle the finances and publicity of the club, and organize the production work. To operate efficiently, the Masque and Gown needs box-office and publicity men, directors, designers, builders, painters, electricians, property men, and costumers as well as actors and playwrights.

PRINTING AND TYPOGRAPHY

To supplement the opportunities offered to students in the fine arts, the College has a printing shop in the Walker Art Building. The equipment consists of an assortment of Caslon types especially imported from England, a smaller quantity of Oxford, Cen-

taur, and Arrighi types, stands, stone, cutters, etc., and an old-style hand press. The purpose is to introduce interested students to the meaning of printing and typography, and to its allied fields in which some knowledge of printing and typography may be of value: editorial work, publishing, advertising, institutional promotion, and the production of fine printing itself.

The college library already owns many examples of fine printing which include the publications designed and printed by Frederick W. Anthoensen, A.M. (Bowdoin, 1947), of The Anthoensen Press, of Portland; books printed by Thomas Bird Mosher, A.M. (Bowdoin, 1906); and publications of the Grolier Club, of New York. In the field of early printing the library possesses several examples of incunabula as well as a collection of 270 leaves of incunabula, mounted and described by Konrad Haebler. In 1950 the library received from Susan Dwight Bliss a unique collection of volumes bound in full leather, beautifully tooled and inlaid by some of the world's finest binders. Among the binders represented are Meunier, Zaehnsdorf, Lortic, Michel, Chambolle-Duru, Riviere and Son, Taffin, Bradstreet, Ruban, Cuzin, and Gruel.

MUSIC

Bowdoin offers its students a variety of musical opportunities. Many undergraduates participate in the Glee Club, the Meddiebempsters, the Bowdoin Orchestral Workshop, and chamber music ensembles. Student instrumentalists often perform in recitals and concerts of solo and chamber music sponsored by the Bowdoin Music Club.

The Glee Club performs with prominent New England women's colleges. It presents a Christmas concert in the Walker Art Building and offers an annual program with the Boston Symphony "Pops." The Meddiebempsters, a double quartet, are widely known through their European tours and their concerts at other colleges. On several occasions they have performed on network radio and television and they have appeared in New York's Town Hall. Coeducation at Bowdoin is expected to enlarge the College's choral program considerably.

Student instrumental ensembles, appearing in numerous concerts on the campus, have presented music by composers as diverse as Monteverdi, Corelli, Stockhausen, Gabrieli, Mozart, Terry Riley, and John Cage. Faculty performers also participate in these ensembles, offering two different series of concerts: those sponsored by the Bowdoin Music Club, featuring a wide range of chamber music from past centuries, and the "Ears" series, spe-

cializing in mixed-media works of the avant-garde, incorporating electronics, film, slides, theater, and dance.

Contemporary music plays an important role in Bowdoin's musical life. Student composers often prepare performances of their own works in special concerts, using the services of student, faculty, and visiting instrumentalists. Many visiting composers appear on campus, often in conjunction with Bowdoin's Contemporary Music Festival. These have included Elliott Carter, Milton Babbitt, Virgil Thomson, George Crumb, William Albright, Morton Subotnick, and Ross Lee Finney. Bowdoin operates an electronic music studio with synthesizer, tape decks, and mixing and editing facilities, used by students in the electronic music course and for independent study projects.

Bowdoin is also concerned with music composed before 1750 and is presently building a collection of early instruments for student performance. The collection includes a single-manual Challis harpsichord and a dual-manual Clayton and Garrett harpsichord. Early music is also stressed in the department's choral activities.

When an artist is invited to perform at Bowdoin, his visit often includes discussions with small groups of students, appearances in classes, and the reading of student compositions. The Curtis-Zimbalist Concert Series, established in 1964 and the principal program through which musicians are invited to perform at Bowdoin, has included the New York Pro Musica, the First Chamber Dance Quartet, pianist Gary Graffman, and the New York Chamber Soloists. The 1971-1972 series will feature the LaSalle String Quartet, the Cambridge Consort, avant-garde pianist Richard Bunger, and the Aeolian Chamber Players.

Professional teachers are available to give instruction in voice, piano, and other instruments to those students who wish to continue their study of applied music. All students of applied music are also asked to participate in ensembles, including the Bowdoin Orchestral Workshop. The College provides practice rooms without charge.

The Bowdoin College Summer School of Music offers intensive training to talented young instrumentalists from all parts of the country. The Aeolian Chamber Players, resident faculty of the summer school, present recitals during July and August. In addition, the players have given the world premieres of works commissioned by Bowdoin at Contemporary Music Festivals. Several of these works are being published by the College as part of the work of the Bowdoin College Music Press.

Public Affairs Research Center

THE Public Affairs Research Center was established in September 1966, through the merger of the Bureau for Research in Municipal Government (established in 1914) and the Center for Economic Research (established in 1958). A full-time professional staff enables the center to carry on a program of identification, preparation, and administration of research investigations dealing generally with economic conditions, community government, regional development, and public administration. These activities are financed through research contracts with government and business organizations, as well as through the assistance of foundation grants and contributions from business firms and individuals.

In addition to special research reports, the center publishes the *Maine Business Indicators,* which contains widely used economic analyses as well as the monthly Maine Business Index. Monographs dealing with various aspects of government activity in Maine—the Government Research Series—are also available through the center.

Within this general framework PARC exercises a unique role in Maine as a research and information center. In addition to the formal studies, the staff of the center is available to answer specific requests for information about socio-economic conditions in Maine that are of concern to business firms, government officials, or other organizations and individuals.

To maintain liaison with the business community and assure adequate and objective representation in the center's studies of current thinking, advisory committees of Maine business leaders are generally established for each major research project. In addition, an informal advisory group to the center is composed of faculty members of Bowdoin College who, by virtue of their experience and interest, can assist in the development and execution of the research program of the center.

The offices of the Public Affairs Research Center are located on the first floor of Hubbard Hall. Here also is the center's library of books, reports, and periodicals covering its fields of interest. This library, supplemented by the regular collection in the Hawthorne-Longfellow Library, is available for consultation and provides the basis for answering requests for specific information. Inquiries should be directed to the Public Affairs Research Center, Bowdoin College, Brunswick, Maine 04011.

The Research Institute of the Gulf of Maine

BOWDOIN COLLEGE, along with seven other educational institutions in Maine, has become a charter member of the Research Institute of the Gulf of Maine. This is a nonprofit corporation established as a consortium to carry out research and educational projects related to oceanography. The nature of oceanographic research and the limited resources of each institution make it highly desirable and imperative that progress in this important area be on a cooperative basis. It is expected that the corporate vehicle will carry out research projects involving in varying degrees participation of faculty members and students as well as physical facilities of the institutional members. None of the separate institutions lose any of their own autonomy with respect to any of the programs that may be carried out by TRIGOM.

Much of the impetus for this consortium followed from a two-day conference on oceanography hosted by Bowdoin College in the summer of 1967. Apart from representatives of the educational institutions in Maine, the conference attracted oceanographers from government agencies, research institutions, and corporations. Physical space for the consortium has been provided by the University of Maine on the Portland campus for the time being. Staffing of the consortium, including the position of executive director, has been made possible through funds the university has obtained as a result of action taken by the Maine Legislature in 1968 and 1969. Eventually it is expected that the consortium will sustain itself through research contracts and private gifts.

Charter members of TRIGOM, apart from Bowdoin College, are Bates and Colby colleges, University of Maine, Nasson and St. Francis colleges, and the Southern Maine Vocational-Technical Institute.

The Bowdoin Scientific Station

THE College maintains a field station at Kent Island, off Grand Manan, in the Bay of Fundy, New Brunswick, Canada, where qualified students can conduct field work on biological problems. Kent Island, containing about two hundred acres and several buildings, was presented to the College in 1935 by Mr. John Sterling Rockefeller, of New York City. Charles E. Huntington, professor of biology, is the director of the station.

This valuable adjunct to the scientific resources of the College, at the entrance to the Bay of Fundy, is the home of thousands of seabirds and is especially attractive to students of ornithology. The extensive tides in the bay provide excellent conditions for the study of marine biology. A wide diversity of terrestrial environments, ranging from marshland to spruce woods, makes the island itself equally attractive to students of ecology.

No formal courses are offered at the station, but students from Bowdoin and other institutions are encouraged to select problems for investigation at Kent Island during the summer and to conduct field work on their own initiative with the advice and assistance of the Department of Biology. Approved field work at the station is acceptable for credit as independent study. Financial assistance for students doing research at Kent Island is available from the Alfred O. Gross Fund (see page 217) and from a grant from the National Science Foundation for undergraduate science education.

Faculty members and graduate students from other institutions have often used the facilities of the station in their research. They have helped the undergraduate members of the station through informal instruction and as examples of experienced investigators at work.

Lectureships and Institutes

THE regular instruction of the College is supplemented each year by ten or twelve major lectures, in addition to lectures and panel discussions sponsored by the various departments of study and undergraduate campus organizations.

LECTURESHIPS

ANNIE TALBOT COLE LECTURESHIP: This lectureship was founded in 1906 by Mrs. Calista S. Mayhew, of South Orange, New Jersey, in memory of her niece, Mrs. Samuel Valentine Cole. According to the terms of the gift, this lectureship was established to contribute "to the ennoblement and enrichment of life by standing for the idea that life is a glad opportunity. It shall, therefore, exhibit and endeavor to make attractive the highest ideals of character and conduct, and also, insofar as possible, foster an appreciation of the beautiful as revealed through nature, poetry, music, and the fine arts."

MAYHEW LECTURE FUND: This lectureship was founded in 1923 by Mrs. Calista S. Mayhew. The income from the bequest is used to provide lectures on bird life and its effect on forestry.

JOHN WARREN ACHORN LECTURESHIP: This lectureship was established in 1928 by Mrs. John Warren Achorn, as a memorial to her husband, a member of the Class of 1879. The income is used for lectures on birds and bird life.

TALLMAN LECTURE FUND: This fund was established with a gift of $100,000 by Frank G. Tallman, A.M. (Bowdoin, 1935), of Wilmington, Delaware, in 1928, as a memorial to the Bowdoin members of his family. The income is to be expended annually upon a series of lectures to be delivered by persons selected by the Faculty. In addition to offering a course for undergraduates, the visiting professors on the Tallman Foundation give public lectures on the subject of their special interest.

VISITING PROFESSORS ON THE TALLMAN FOUNDATION: 1962-1972

Ole Myrvoll, DR. OECON., *Professor of Economic Theory, Norwegian School of Economics and Business Administration, Bergen. Visiting Professor of Economics,* Spring 1962.

Rex Warner, *Visiting Professor in Classical History and Literature,* 1962-1963.

Alfred Maurice Taylor, M.A., Ph.D., *Professor of Physics, University of Southampton. Visiting Professor of Physics,* 1964-1965.

Mahadev Dutta, B.Sc., M.Sc., D.Phil. (Sc.), *Professor of Mathematics, North Bengal University. Visiting Professor of Mathematics,* 1966-1967.

Howard Nemerov, A.B., L.H.D., *Professor of English, Brandeis University. Visiting Professor of English,* Spring 1969.

Michael Charles Hurst, M.A., *Fellow and Tutor in Modern History and Politics, St. John's College, Oxford. Visiting Professor of History,* 1970-1971.

Ellis Ridgeway Lippincott, A.B., M.A., Ph.D., *Professor of Chemistry, University of Maryland. Visiting Professor of Chemistry,* Fall 1970.

Lou Emma Holloway, A.B., M.A., *Associate Professor of American and Afro-American History, Tougaloo College. Visiting Associate Professor of History,* Fall 1971.

James Richmond, M.A., B.D., Ph.D., *Deputy Chairman of Department of Religious Studies, University of Lancaster. Visiting Professor of Religion,* Spring 1972.

Chemistry Lecture Fund: By vote of the Boards in 1939 the balance of $1,280 from a fund given for Department of Chemistry Lectures is used for special lectures in chemistry.

The Student Council Lectureship: This lectureship, an annual gift to the College from the Student Council, was established in 1958 to provide a lecture on a topic of interest to students.

Edith Lansing Koon Sills Lecture Fund: This fund, at present amounting to $5,025, was established in 1961 by the Society of Bowdoin Women to honor Mrs. Kenneth C. M. Sills, the wife of a former president of Bowdoin College. The fund is to be used to support lectures at the College.

Charles Weston Pickard Lecture Fund: Founded in 1961 by John Coleman Pickard, of the Class of 1922, in memory of his grandfather, a member of the Class of 1857. Starting with a gift of $15,000, the interest is to be added to the principal until it reaches $25,000, except that beginning with the academic year 1963-1964, and every four years thereafter, the income for that particular year shall be used to provide a lecture in the field of journalism in its

broadest sense. "By journalism is meant lines of communication with the public, whether through newspapers, radio, television, or other recognized media."

Charles R. Bennett Memorial Fund: A fund of $1,000 given in 1962 by Mrs. Mary D. Bennett in memory of her husband, Charles R. Bennett, of the Class of 1907. The income is made available to the Department of Mathematics preferably for the purpose of meeting the expenses of a visiting mathematics lecturer.

The Jasper Jacob Stahl Lectureship in the Humanities: Established in 1970 at the bequest of the late Jasper Jacob Stahl, Litt.D., of the Class of 1909, the annual income from this fund is "to support a series of lectures to be delivered annually at the College by some distinguished scholarly and gifted interpreter of the Art, Life, Letters, Philosophy, or Culture, in the broadest sense, of the Ancient Hebraic World, or of the Ancient Greek World or of the Roman World, or of the Renaissance in Italy and Europe, or of the Age of Elizabeth I in England, or that of Louis XIV and the Enlightenment in France, or of the era of Goethe in Germany."

Alfred E. Golz Lectureship: This lectureship, established in 1970, is supported by an annual gift from Ronald A. Golz, of the Class of 1956, in memory of his father, Alfred E. Golz. The lectureship will sponsor an annual lecture "by an eminent historian or humanitarian on any subject of general import to students of the liberal arts."

NATIONAL SCIENCE FOUNDATION INSTITUTES

Summer Institutes

Three grants totaling $140,142 were received from the National Science Foundation for conducting institutes on the Bowdoin campus in the summer of 1971. Institutes for secondary school teachers were held in chemistry, mathematics, and marine biology. These three institutes ran concurrently from June 28 to August 6. Each institute offered credit at a graduate level of two semester courses or eight semester hours. Under the terms of the grant each participant received a stipend of $75 a week with additional allowance for dependents and travel.

The Chemistry Institute, directed by David A. Wheatland, of the Department of Chemistry, was designed for thirty-six high school teachers who taught or were preparing to teach advanced placement chemistry courses.

The Marine Biology Institute, under the direction of Alton H. Gustafson, professor of biology, was presented to thirty-six science teachers selected because of their interest in marine biology and their ability to foster this interest in their students. Emphasis in this institute was placed on the ecological aspects of the marine environment and the use of living organisms. A part of the program is carried on at the Bowdoin College Marine Laboratory.

The Mathematics Institute was under the direction of Professor Richard L. Chittim of the Department of Mathematics. It provided sixty teachers a program of two courses: one in functions of complex variables and one in linear algebra. This institute was the thirteenth of a series of Summer Institutes for Secondary School Teachers of Mathematics planned to give credit toward a master's degree. Again this year participants were selected from highly qualified teachers who are expected to exert leadership in the teaching of mathematics in secondary schools.

American teachers who attended these institutes came from every section of the United States. Bowdoin College provided both dining and housing accommodations. Approximately one-half of the teachers were accompanied by their families. Throughout the period of the institutes the facilities of the College, including the library, the museum, and the Moulton Union, were made available to these participants. The coordinator of the 1971 institutes was Harry K. Warren.

Mathematics Seminar

In addition to the three institutes above, there was also the seventh of a sequence of Advanced Science Seminars in Algebra for graduate and postdoctoral students of mathematics. The seminar, financed by a grant of $95,560 from the National Science Foundation, was under the direction of Dan E. Christie, professor of mathematics, and Robin B. S. Brooks, assistant professor of mathematics. The 1971 seminar, devoted to combinatorial theory, ran from June 22 to August 12. More than sixty graduate students joined with more than sixty senior and postdoctoral members for intensive study and research. Numerous stipends and allowances for travel and subsistence were available to members of the seminar.

SUMMER SCHOOL OF MUSIC

The Summer School of Music, which is coeducational, was founded by Bowdoin in 1965 to give serious music students and advanced young instrumentalists an opportunity to develop as

performers and musicians through a concentrated program of instrumental and chamber music lessons.

During the summer of 1971 enrollment was limited to about twenty-five students. Instruction was offered in violin, viola, cello, flute, clarinet, piano, and chamber music for mixed timbre, and students were given the opportunity to perform in public at weekly recitals. Upon successfully completing the six-week course, students received one Bowdoin semester course academic credit, the equivalent of four hours, toward the bachelor of arts degree. The Aeolian Chamber Players also presented a series of weekly concerts.

Student Life and Activities

BOWDOIN provides for its students a campus life which combines traditional features of the liberal arts college with modern facilities and programs which enrich the experience of undergraduate life. The curriculum offers formal instruction in those subjects appropriate to the development of educated and enlightened citizens. Within this framework students are encouraged, and are permitted sufficient flexibility, to develop their talents and capacities for leadership to the utmost. The physical plant and equipment of the College has been considerably improved in recent years, and visitors are frequently impressed by the quality of these physical facilities, given the modest size of the student body. Along with the library, laboratories, art museum, concert and lecture halls, social center, infirmary, and athletic facilities, continuing attention is given to the less tangible—but more important—intellectual resources of the College. Art shows, lectures, concerts, motion pictures, and legitimate dramatic productions are all planned to provide stimulating experiences which will enhance the student's everyday work within the formal curriculum.

THE HONOR SYSTEM: A student initiated proposal, the Bowdoin Honor System was devised with the uniqueness of Bowdoin foremost in mind. As voted by the Faculty and students, it places complete responsibility upon the individual student for integrity in all of his academic work, including the use of the College library. During registration, each student signs a pledge signifying that he understands and agrees to abide by the Bowdoin College Honor System. In so doing, he is pledging himself neither to give nor to receive unacknowledged aid in any academic undertaking. Further, he is pledging himself, in the event that he witnesses a violation of the Honor System, to "take such action as he believes is consistent with his own sense of honor." Responsibility for instructing students about their obligations under the Honor System resides with the Student Judiciary Board, which also recommends any action in the event of a reported violation. The constitution of the Honor System and other explanatory information are published in a special booklet distributed to all entering students.

THE SOCIAL CODE: A Bowdoin College Social Code developed by the cooperative efforts of students and faculty members governs undergraduate behavior on the campus. Each student is required

to subscribe to the Social Code at registration just as he accepts the Honor Code.

Primary responsibility is placed upon each student for the conduct of his own life. However, the college environment inevitably demands from every student social responsibility. The introduction to the code states: "A Social Code, as opposed to a set of rules, places greater responsibility on its participants than might be at first apparent. The freedom conferred by a Social Code is a positive value only so long as one person's freedom or privacy does not interfere with another's."

The responsibility to create a harmonious community among students with different backgrounds and conflicting private views of morality is given, in the first place, to the students. When conflicts arise between students, the code suggests that they be settled on the local level where they originate. Persistent and serious violations of this Social Code may be brought to the attention of the dean of students and eventually to the Student Judiciary Board for action.

Living and Dining Accommodations: The College provides living and dining accommodations for its students. Entering freshmen live in the several dormitories. Those electing to join fraternities will, after the first few days, normally take their meals at the fraternity house; others dine at the Moulton Union. All seniors with but a few exceptions, live and dine at the Senior Center. Students who request and accept room accommodations in the fall are obligated to pay a full year's rent for those accommodations. Further, students who live in campus dormitories are required to hold a regular board bill at the Moulton Union or at the Senior Center in the case of those living there. The fraternity chapter houses furnish dining accommodations to their members with the exception of the seniors and living accommodations for a large proportion of the sophomore and junior classes (the final arrangements for living quarters being contingent upon the size of enrollment and other factors). Both fraternity and dormitory quarters help to promote the valuable friendships and give-and-take of opinion perennially associated with campus life.

The Moulton Union: The Union is the community center of the College, for all members of the college family—students, faculty, administration, alumni, and guests (and their families). It is not merely a building; it is also an organization and a program. Together they represent a well-considered plan for the community life of the College.

The main lounge, with its pleasant fireplace, is arranged for informal use as well as college gatherings: lectures, smokers, recitals, receptions, and banquets. A conference lounge in the opposite wing and two smaller lounges add flexibility to the main floor area. Also on this floor are the scheduling and information desk and the campus telephone switchboard.

A large, self-service bookstore, which features a broad selection of paperbacks, is located in the southeast corner on the main floor and supplies textbooks and sundries to members of the College. Profits are used for general student social purposes under the direction of the Student Union Committee.

Extracurricular activities such as the Student Union Committee, the *Orient,* the *Bugle,* the Debating Council, the Outing Club, Camera Club, and WBOR have offices in the Union.

On the lower floor, food service is provided in a variety of dining rooms with distinctive decor, where members and friends of the College may dine pleasantly for regular meals or between-meal snacks. One of the dining rooms serves as a banquet room for groups of less than one hundred. Also on this floor are game and television rooms.

The facilities of the Union resemble those of a club in which there are daily opportunities for new students to meet and form friendships with other students and faculty members. The donor's wish to provide a place where the fires of friendship may be kindled and kept burning has been amply realized.

The formulation of policies and the planning of the many-sided program of Union activities are the responsibility of the Union director assisted by the Student Union Committee, consisting of a representative from each fraternity and from the Independents. By sponsoring concerts, dances, lectures, art exhibitions, motion pictures, tournaments, and other entertainments, the committee contributes to the social life of the entire college community.

STUDENT UNION COMMITTEE OFFICERS

Fall 1971

Ronald Peter Hale, *President*
Frank Andrew deGanahl, *Vice President*
Mark Godwin, *Secretary-Treasurer*

Fraternity Representatives: Richard Ian Lustig (Alpha Delta Phi), Theodore Sherman Cleveland, Jr. (Alpha Kappa Sigma), Richard Dole Leach (Alpha Rho Upsilon), Josiah Augustus Spaulding, Jr. (Beta Theta Pi), Jan Erik Pierson (Chi Psi), Joseph

Jeffrey Leghorn (Delta Sigma), Jose Alberto Diaz (Delta Kappa Epsilon), Gridley Weatherbee Tarbell II (Psi Upsilon), Josiah Collins, Jr. (Theta Delta Chi), Stephen Robert Sozanski (Zeta Psi).

Independent Representatives: Michael Earle Anderson, Ian Ellis James, Roderick Thomas Sherman, Mervyn Winston Smith.

Fraternities: Greek-letter fraternities first appeared on the Bowdoin campus in 1841. A century ago their functions were purely literary and social, but with the passing years they have become more and more an integral part of college life. In the early years, the meeting places of the fraternities were known only to their members. Later the members of the various chapters lived together in several of "the ends" of the college dormitories. A new era began in 1900 when two of the Greek-letter societies moved into houses of their own and took over the provision of living and dining facilities. Ordinarily, the sophomore and junior class members live "at the house," while all of the members, with the exception of the seniors, dine there.

Membership in a fraternity provides much more than an attractive eating club, agreeable companionship, occasional house parties, and interfraternity athletic competition. To many graduates, such membership has meant a valuable training in the care of material property and in the maintenance of good relations with the town and with other groups, and cooperation with the administration and the faculty advisers in promoting worthy social and educational goals.

Independents: The Independent group at Bowdoin has grown rapidly during the past several years. Members of this group usually live in the dormitories and dine at the Moulton Union. The group has its own faculty adviser and holds out to its members the possibility of friendly association with fellow students without the more formal ties that go with fraternity organization.

Aspau and Laspau Scholars: Several students are in residence at Bowdoin under the African Scholarship Program of American Universities and the Latin American Scholarship Program of American Universities.

The Student Council: The control of student life at Bowdoin is entrusted in the fullest possible measure to the students themselves. Undergraduate self-government is vested in the Student Council, which makes recommendations about student affairs to the student body, and to the Faculty.

STUDENT COUNCIL

Fall 1971

Michael Wesley Bushey, *President*
C. Mitchell Goldman, *Vice President*
Mark Frank Strauss, *Secretary-Treasurer*

Fraternity Representatives: Delbert Brooks Fortney, Jr. (Alpha Delta Phi), James Maynard Bowie (Alpha Kappa Sigma), Lawrence Charles Wolfe (Alpha Rho Upsilon), James Henry Baird, Jr. (Beta Theta Pi), Robert Frank Krachman (Chi Psi), Charles Baird Price III (Delta Kappa Epsilon), William Errol Offenberg (Delta Sigma), Timothy Crosby Woodcock (Psi Upsilon), Sheldon Michael Stone (Theta Delta Chi), and Harry George Simmeth, Jr. (Zeta Psi).

Independent Representatives: George W. Alston, James LaVoy Lyons, Joseph Quan.

Representatives at Large: Roger Lloyd Conover, Russell Clement Dabrowski, Stephen Wilde Moriarty (Class of 1972); Alan Michael Christenfeld, Thomas Joseph Costin, Gregory Leary, James Edward McHugh, Jr., Richard Allan Nylen (Class of 1973); Thomas Earl Hoerner, Frederick John Honold, Jr., Gilbert Ware Lewis, Mervyn Winston Smith, David Perrin Wheeler (Class of 1974).

THE STUDENT JUDICIARY BOARD: The Student Judiciary Board is responsible for introducing new students to the Honor System and Social Code. It also sits in judgment on violations of the Honor System and on breaches of the Social Code. Its decisions take the form of recommendations to the dean of students. The board comprises three seniors and two juniors, all elected by the Student Council.

Student Judiciary Board, Fall 1971: Thomas Joseph Cassidy, Thomas Joseph Costin, Richard Gardner Kimball *(Chairman)*, Douglas Clifton Lyons, David Bobbitt Noel, Jr.

THE STUDENT CURRICULUM COMMITTEE: The Student Curriculum Committee is interested in faculty-student relationships. Among its contributions to the College is the arrangement of lectures of interest to the college community, delivered principally by members of the Faculty. The five-member committee is elected in the fall; two are members of the Student Council and three, members-at-large, are from the student body.

THE STUDENT COMMITTEE FOR THE SENIOR CENTER: The elected officers of the Senior Class meet frequently with the director of the

Senior Center to assist in program planning. This committee may be augmented by additional representatives of the class, as decided by the seniors at a meeting in the early part of the senior year.

STUDENT COMMITTEE FOR THE SENIOR CENTER

Fall 1971

John Hopkins Parsons *(Class President)*
Thomas G. Wourgiotis *(Class Vice President)*
William Taylor Hale *(Class Secretary-Treasurer)*

THE BOARD OF PROCTORS: The maintenance of order in the dormitories and the responsibility for their proper care are delegated to a Board of Proctors nominated by the Student Council and appointed by the dean of students with the approval of the Faculty.

Board of Proctors, Fall 1971: Girma Asmerom, Jeffory Donald Begin, Joseph Francis Bonasera, Brian Charles Curley, Thomas Joseph Hutchinson, James Edward McHugh, Jr., Richard Allan Nylen, Joseph Quan, Bernard Keith Quinlan, John Robert Redman, and three women undergraduates to be appointed at the beginning of the fall semester.

THE ORIENT: *The Bowdoin Orient,* the college newspaper, is now in its 101st year of continuous publication. Opportunities for freshmen as "cub" reporters, and for newcomers at the news desk, continue as in the past, and advancement on the staff is rapid for those with a flair for journalism. Students interested in the business management of the newspaper will also find opportunities for work and advancement.

THE QUILL: The *Quill* is the college literary publication and is normally published once each semester. Each issue contains articles in all fields of student literary interest: short stories, essays, poems, and reviews. Contributions are welcomed from all members of the College.

THE BUGLE: The *Bugle* is the college yearbook.

MUSIC: Music activities include the Bowdoin Bachelors, an octet; the Meddiebempsters, an augmented double quartet; the Glee Club; the Bowdoin Marching Band; and the Brass Ensemble, which frequently premiers student-written works.

RADIO: In WBOR, "Bowdoin-on-Radio," the College has a well-equipped FM radio station as the result of a gift from the Class of 1924. Situated on the second floor of the Moulton Union, both studios and the control room are sealed against disturbances of

sound with acoustical tiling and sound-lock doors. The station is equipped to produce high-fidelity broadcasts.

Debating: In addition to the Achorn and Bradbury Prize Debates, an extensive program of intercollegiate debating is sponsored by the Debating Council. The annual interfraternity debate competition for the Wilmot Brookings Mitchell Debate Trophy is under the general supervision of the Council.

The Masque and Gown: This college dramatic organization has for over sixty years provided undergraduates with opportunities to give practical expression to their interest in the theater. Townspeople collaborate with the student members of Masque and Gown in many productions. The Executive Committee hopes to continue its policy of producing full-length and one-act plays written by students; the committee also plans to use various experimental production techniques. Under the direction of a member of the Faculty, and housed in Pickard Theater, the Masque and Gown offers many opportunities for those interested in playwriting, scene design and construction, acting, and business management and publicity.

The Political Forum: This student organization actively fosters the discussion and debate of current political practices and problems of local, state, national, and international interest. The forum has instituted the policy of inviting guest speakers to lecture to the college community.

The Outing Club: Organized in 1948, the Outing Club sponsors a program of outdoor activities including rock and mountain climbing, cycling, canoeing, and skiing.

The White Key: This organization has two functions: to program and supervise all interfraternity athletics, and to serve as the official committee to welcome and make arrangements for the entertainment of teams visiting Bowdoin from other institutions.

The Afro-American Society: Primarily to make the black student proud and aware of his heritage and, at the same time, to convey to the white community an understanding of that heritage by emphasizing black contributions to culture, the Afro-American Society was formed by students in 1968. The society is instrumental in the recruitment of black students and assists black freshmen in making the adjustment to college life. The activities of the society are concentrated in the Afro-American Center.

Social Service: Many Bowdoin students have turned away from the so-called conventional campus-oriented extracurricular activi-

ties and have focused their attention on the social problems confronting the nation. In recent years social service projects have involved more than 200 students.

A program that has grown in recent years is the Bowdoin Big Brother program. With the cooperation of parents and local elementary and junior high school officials, Bowdoin students have served as big brothers to many boys in the Brunswick area. Big brothers usually spend several hours a week with their little brothers in activities intended to provide the male companionship that every boy needs.

For other students the Pineland Project is a way to be of service to the community. Located in Pownal, about fifteen miles from the campus, Pineland Hospital and Training Center is a state-supported institution for the mentally retarded. Students go there about once a week to serve as companions to patients or to assist the staff in other ways, according to the needs of the staff and the interest and abilities of the students.

Students interested in teaching careers are often members of Bowdoin Undergraduate Teachers, an organization that assists teachers in the Brunswick school system. Juniors and seniors who are in good academic standing and have the permission of their major department may receive classroom assignments.

Other students participate in the Bowdoin-Brunswick Tutorial program. This program is open to all Bowdoin students who are interested in tutoring local school children.

Begun in 1970, the Brotherhood Internship Program is designed to equip young black students for higher education. Members of the College's Afro-American Society actively seek out tenth- and eleventh-grade students from urban areas for participation in a six-week summer educational program conducted at the College and involving classes, field trips, and other activities. These young students receive guidance from the program's college participants and are invited to visit Bowdoin when classes are in session.

Religious Life: Religious activities at Bowdoin are controlled by the students. In recent years the Bowdoin Christian Association, the Episcopal Undergraduate Committee, the Bowdoin Newman Apostolate, the Bowdoin Jewish Association, and the Student Religious Liberals have been active. Each has planned activities appropriate to its membership. Thus, the Newman Apostolate has sponsored weekly folk Masses on the campus and the Episcopal Undergraduate Committee has sponsored weekly campus vespers and Holy Communion services.

Physical Education and Athletics

BOWDOIN believes that physical education is an important part of the total educational program. The Department of Physical Education provides students with opportunities for satisfying experience in physical activities for the achievement of health and physical fitness. The physical education program includes classes which emphasize instruction in sports activities with carry-over value, a year-round schedule of intramural athletics for the whole student body, and intercollegiate competition in sixteen sports. Students are encouraged to use the athletic facilities to participate in free recreational play.

Physical Education: The department offers courses of instruction in sports which students may enjoy for many years after college, learning skills that should give them an interest in physical activity in later life. Instruction will be given in tennis, squash, sailing, skating, weight training, volleyball, badminton, swimming, water polo, life saving, scuba diving, fly fishing, and other comparable activities.

Intercollegiate Athletics: Bowdoin offers intercollegiate competition in the following sports: football, cross-country, basketball, track (winter and spring), swimming, hockey, wrestling, lacrosse, skiing, golf, tennis, baseball, rifle, soccer, squash, and sailing (fall and spring). Varsity and freshman teams are maintained in most of these sports, giving every undergraduate an opportunity to try out for the sport of his choice.

Intramural Athletics: Competition between fraternities is scheduled in softball, touch football, basketball, hockey, track, swimming, sailing, bowling, squash, and volleyball. Undergraduates not actively engaged in intercollegiate sports during a given season are eligible for intramural contests.

Outdoor Facilities: The outdoor athletic facilities of the College are excellent. Whittier Field is a tract of five acres that is used for football games and also includes an all-weather track. It has a grandstand with team rooms beneath it. Pickard Field is a tract of over seventy acres that includes two baseball diamonds; spacious playing fields for lacrosse, soccer, football, touch football, and softball; ten tennis courts; and a field house.

Indoor Facilities: With the completion of the Morrell Gymnasium in 1965, the College possesses indoor facilities that are the equal of its outstanding outdoor facilities. The 50,000-square-foot building, connected to the Sargent Gymnasium, contains a modern basketball court with seats for about 2,500 persons, four visiting team rooms, eleven squash courts, locker room with 500 lockers, shower facilities, modern fully equipped training room, adequate offices for the director of athletics and his staff, and other rooms for physical education purposes. Sargent Gymnasium has been altered and renovated to include a wrestling room, a weight-training room, and two special exercise rooms, and to make it an efficient part of the comprehensive plan. The Hyde Athletic Building, which is attached to the Sargent Gymnasium, includes a cinder track, facilities for field events, a banked board track, and a baseball infield. Completing the athletic facilities are the Curtis Swimming Pool, containing a pool thirty feet by seventy-five feet, and the Arena, which has a refrigerated ice surface eighty-five feet by two hundred feet and seating accommodations for 2,400 spectators.

Career Counseling and Placement

THE College offers assistance to students and graduates in solving the problem of employment, both during their undergraduate courses and afterward. Opportunities for undergraduates to do part-time work at the College or in the community may usually be obtained through the Student Aid Office.

Students are encouraged to register early in their college career and to consult the director in Banister Hall for vocational counsel and guidance if the work of the office is to be most effective in placing men upon graduation in the positions for which they are best qualified.

The campus career interviews are planned to broaden the student's vocational interest and to aid him in selecting his life's work. Each student should survey his abilities objectively and study the demands of business, the occupations, and the professions in order to assist him in his planning. Students with a definite goal in mind usually approach their work with an earnestness of purpose. While the selection of a career must necessarily be left to the student, it should not be deferred too long or left to chance. The office has information available to help guide the applicant. Extensive literature, including occupational monographs and recent books on business careers, are at the disposal of the students. The candidate's undergraduate record, including classroom work, vocational aptitude tests, and extracurricular activities—is used to determine his availability for positions after graduation.

The office continually expands its contacts with employers, acting as an intermediary for the exchange of vocational information between employers and registrants. Representatives of industry are invited to the campus to confer with students and to discuss not only the qualifications necessary for success in their special fields but to explain the opportunities offered to college men. During the fall business conferences are usually held for the benefit of registrants. The Alumni Committees broaden the contacts available for registrants. The office provides the Area Committees with information necessary for proper classification and counseling of candidates referred to them.

Students planning to enter graduate school should consult with one of the deans and the chairmen of their major departments. No charge is made for services rendered to candidates or employers.

Prizes and Distinctions

THE BOWDOIN PRIZE

The Bowdoin Prize: A fund, now amounting to $30,211, established as a memorial to William John Curtis, LL.D., of the Class of 1875, by his wife and children. The prize, four-fifths of the total income, is to be awarded "once in each five years to the graduate or former member of the College, or member of its faculty at the time of the award, who shall have made during the period the most distinctive contribution in any field of human endeavor. The prize shall only be awarded to one who shall, in the judgment of the committee of award, be recognized as having won national and not merely local distinction, or who, in the judgment of the committee, is fairly entitled to be so recognized." (1928)

The first award was made in 1933 to Fred Houdlett Albee, M.D., Sc.D., LL.D., of the Class of 1899. Other recipients have been: in 1938, Harvey Dow Gibson, LL.D., of the Class of 1902, and Paul Howard Douglas, Ph.D., LL.D., Litt.D., of the Class of 1913; in 1948, Kenneth Charles Morton Sills, L.H.D., LL.D, of the Class of 1901; in 1954, Rear Admiral Donald Baxter MacMillan, Sc.D., of the Class of 1898; in 1958, Harold Hitz Burton, Jur.D., LL.D., of the Class of 1909; in 1963, William Hodding Carter, Jr., Litt.D., L.H.D., LL.D., of the Class of 1927; in 1968, Austin Harbutt MacCormick, Sc.D., LL.D., of the Class of 1915.

UNDERGRADUATE PRIZES

Prizes in General Scholarship

Brown Memorial Scholarships: A fund for the support of four scholarships in Bowdoin College given by the Honorable J. B. Brown, of Portland, in memory of his son, James Olcott Brown, A.M., of the Class of 1856. According to the provisions of this foundation, there will be paid annually the income of $1,000 to the best scholar in each undergraduate class who shall have graduated at the high school in Portland after having been a member thereof not less than one year. (1865)

Almon Goodwin Prize Fund: This fund of $1,190 was established by Mrs. Maud Wilder Goodwin in memory of her husband, Almon Goodwin, of the Class of 1862. The annual income, approximately $100, is awarded to a Phi Beta Kappa man chosen by

vote of the Board of Trustees of the College at the end of the recipient's junior year. (1906)

George Wood McArthur Prize: A fund of $2,000 bequeathed by Almira L. McArthur, of Saco, in memory of her husband, George Wood McArthur, of the Class of 1893. The annual income is awarded as a prize to that member of the graduating class who, coming to Bowdoin as the recipient of a prematriculation scholarship, shall have attained the highest academic standing among such recipients within the class. (1950)

The Leonard A. Pierce Memorial Fund will support a prize to be awarded each year to that member of the graduating class of the College continuing his education in an accredited law school, who has attained the highest scholastic average during his years in college, such prize to be paid to the recipient on his enrollment in law school. (1961)

Departmental Prizes

Sue Winchell Burnett Music Prize: A prize consisting of the annual income of a fund of $1,396 established by Mrs. Rebecca P. Bradley in memory of Mrs. Sue Winchell Burnett. It is awarded upon recommendation of the Department of Music to that member of the senior class who has majored in music and has made the most significant contribution to music while a student at Bowdoin. If two students make an equally significant contribution, the prize will be divided equally between them. (1963)

Class of 1875 Prize in American History: A prize consisting of the annual income of a fund of $4,545 established by William John Curtis, LL.D., of the Class of 1875, is awarded to the student who writes the best essay and passes the best examination on some assigned subject in American history. (1901)

Copeland-Gross Biology Prize: A prize named in honor of two former Josiah Little Professors of Natural Science, Manton Copeland, Ph.D., and Alfred Otto Gross, Ph.D., Sc.D., is given by the Department of Biology to that graduating senior who has best exemplified the idea of a liberal education during the major program in biology. (1959)

Hannibal Hamlin Emery Latin Prize: A prize consisting of the annual income of a fund of $1,190 is awarded to a member of the junior or senior class for proficiency in Latin. (1922)

Fessenden Prize in Government: A prize of $25, the gift of Richard Dale, of the Class of 1954, is given by the Department of Government to that graduating senior who as a government major has made the greatest improvement in his studies in government, who has been accepted for admission into either law or graduate school or has been accepted for employment in one of certain federal services, and who is a United States citizen. (1964)

Goodwin French Prize: A prize consisting of the annual income of a fund of $650 given by the Reverend Daniel Raynes Goodwin, D.D., of the Class of 1832, is awarded to the best scholar in French. (1890)

Nathan Goold Prize: A prize consisting of the annual income of a fund of $2,577 established by Abba Goold Woolson, of Portland, in memory of her grandfather. It is awarded to that member of the "Senior Class who has, throughout his college course, attained the highest standing in Greek and Latin studies." (1922)

Edwin Herbert Hall Physics Prize: A prize, named in honor of Edwin Herbert Hall, of the Class of 1875, the discoverer of the Hall Effect, is awarded each year to the best sophomore scholar in the field of physics. (1953)

Edward Sanford Hammond Mathematics Prize Fund: Established by former students of Edward S. Hammond, Ph.D., Wing Professor of Mathematics Emeritus, upon the occasion of his retirement, the income is used for a prize book to be awarded upon recommendation of the faculty of the Department of Mathematics to a graduating senior who is completing with distinction a major in mathematics. Any balance of the income from the fund may be used to purchase books for the use of the Department of Mathematics. (1963)

Sumner Increase Kimball Prize: A prize consisting of the annual income of a fund of $2,799 established by the Honorable Sumner Increase Kimball, Sc.D., of the Class of 1855, is awarded to that member of the senior class who has "shown the most ability and originality in the field of the Natural Sciences." (1923)

Eaton Leith French Prize: The annual income of a fund of $1,000 is awarded to that member of the junior class who, by his proficiency and scholarship, achieves outstanding results in the study of French literature. The prize was established in 1962 and endowed in 1966 by James M. Fawcett III, of the Class of 1958, to

honor Eaton Leith, A.M., professor of Romance languages emeritus. (1962)

Noel C. Little Prize in Experimental Physics: A prize named in honor of Noel C. Little, of the Class of 1917, professor of physics emeritus, and Josiah Little Professor of Natural Science Emeritus, to be awarded "to a graduating senior who has distinguished himself in experimental physics." (1968)

Charles Harold Livingston Honors Prize in French: The annual income of a fund of $1,181 is awarded to encourage independent scholarship in the form of honors theses in French. The fund was established by former students of Charles Harold Livingston, Ph.D., Longfellow Professor of Romance Languages, upon the occasion of his retirement. (1956)

Donald and Harriet S. Macomber Prize in Biology: A fund of $5,875 established by Dr. and Mrs. Donald Macomber in appreciation for the many contributions of Bowdoin in the education of members of their family—David H. Macomber '39, Peter B. Macomber '47, Robert A. Zottoli '60, David H. Macomber, Jr. '67, and Steven J. Zottoli '69. The income of the fund is to be awarded annually as a prize to the outstanding student in the Department of Biology. If in the opinion of the department in any given year there is no student deemed worthy of this award, the award may be withheld and the income for that year added to the principal of the fund. (1967)

Philip Weston Meserve Fund: A prize consisting of the annual income of a fund of $605 in memory of Professor Philip Weston Meserve, of the Class of 1911, "to be used preferably to stimulate interest in Chemistry." (1941)

Noyes Political Economy Prize: A prize consisting of the annual income of a fund of $1,190 established by Crosby Stuart Noyes, A.M. (Bowdoin, 1887), is awarded to the best scholar in political economy. (1897)

The Old Broad Bay Prizes in Reading German: The income from a fund of $1,324 given by Jasper J. Stahl, Litt.D., of the Class of 1909, and by others to be awarded to students who in the judgment of the department have profited especially from their instruction in German. The fund is established as a living memorial to those remembered and unremembered men and women from the valley of the Rhine who in the eighteenth century founded the

first German settlement in Maine at Broad Bay, which is now Waldoboro. (1964)

Pray English Prize: A prize consisting of the annual income of a fund of $1,288 given by Thomas Jefferson Worcester Pray, M.D., of the Class of 1844, is awarded to the best scholar in English literature and original English composition. (1889)

Sewall Greek Prize: A prize of $25 from the income of a fund given by Jotham Bradbury Sewall, D.D., of the Class of 1848, formerly professor of Greek in the College, is awarded to the member of the sophomore class who sustains the best examination in Greek. (1879)

Sewall Latin Prize: A prize of $25 from the income of a fund also given by Professor Sewall, is awarded to the member of the sophomore class who sustains the best examination in Latin. (1879)

David Sewall Premium: A prize consisting of the annual income of a fund of $1,238 is awarded to a member of the freshman class for excellence in English composition. (1795)

Bertram Louis Smith, Jr., Prize: A bequest of $4,059 from Bertram Louis Smith, in memory of his son, a member of the Class of 1903, to encourage excellence of work in English literature. The annual income of this fund is awarded by the department to a member of the junior class who has completed two years' work in English literature. Ordinarily it is awarded to a student majoring in English and performance of major work as well as record in courses is taken into consideration. (1925)

Smyth Mathematical Prize: A fund of $6,952, the gift of Henry Jewett Furber, of the Class of 1861, named by him in honor of Professor William Smyth. Three hundred dollars, the income of the fund, is given to that student in each sophomore class who obtains the highest rank in the mathematical studies of the first two years. The rank is determined mainly by the daily recitations, but the Faculty may in its discretion order a special examination, the result of which will be combined with the recitation rank. The successful candidate receives one-third of the prize at the time the award is made. The remaining two-thirds is paid to him in installments at the close of each term during junior and senior years. If a vacancy occurs during those years, the next in rank secures the benefit of the prize for the remainder of the time. (1876)

Lea Ruth Thumim Biblical Literature Prize: A prize consisting of the annual income of a fund of $1,050 given by Carl Thumim in memory of his wife, Lea Ruth Thumim, is awarded each year by the Department of Religion to the best scholar in biblical literature. (1959)

Prizes in Debating and Speaking

Edgar Oakes Achorn Prize Fund: The income of this fund of $1,214 is distributed as prizes to the winning team in an annual debate between members of the freshman and sophomore classes. First prize, approximately $60; second prize, approximately $40. (1932)

Alexander Prize Fund: This fund of $1,488 was established by the Honorable DeAlva Stanwood Alexander, LL.D., of the Class of 1870, and furnishes two prizes, three-fifths and two-fifths of the annual income for excellence in select declamation. Competition is open to freshmen, sophomores, and juniors. First prize, approximately $75; second prize, approximately $50. (1905)

Bradbury Debating Prize: The annual income on $2,130 of a fund of $5,130 given by the Honorable James Ware Bradbury, LL.D., of the Class of 1825, is awarded for excellence in debating. First team, approximately $120; second team, approximately $60. (1901)

Class of 1868 Prize: A prize of $100 supported from a fund contributed by the Class of 1868, is awarded to the author of the second-best Commencement Part. (1868)

Hiland Lockwood Fairbanks Prize Fund: This fund of $2,385 was established by Captain Henry Nathaniel Fairbanks, of Bangor, in memory of his son, Hiland Lockwood Fairbanks, of the Class of 1895. Of the annual income of approximately $200, one-half is awarded as a single prize of approximately $50 for excellence in both advanced public speaking (*Speech* 5) and in debate (*Speech* 6), and the remaining one-half, in a two-to-one ratio, is to be awarded as first and second prizes to the two outstanding students in the fall semester of *Speech* 1. (1909)

Goodwin Commencement Prize: Established by the Reverend Daniel Raynes Goodwin, D.D., of the Class of 1832, a prize of $200 is awarded to the author of the best Commencement Part. (1882)

Wilmot Brookings Mitchell Debate Trophy: This trophy, presented by an anonymous donor, is to be inscribed annually with

the winner of a competition among the undergraduate groups and awarded to that group which has won three annual competitions. (1953)

Stanley Plummer Prizes: Of the annual income of approximately $100 of a fund of $1,056 established by Stanley Plummer, of the Class of 1867, first and second prizes, in a two-to-one ratio, will be awarded to the outstanding students in the spring semester of *Speech* 1. (1919)

Essay Prizes

Philo Sherman Bennett Prize Fund: This fund of $602 was established by the Honorable William Jennings Bryan from trust funds of the estate of Philo Sherman Bennett, of New Haven, Connecticut. The proceeds are used for a prize of approximately $50 for the best essay discussing the principles of free government. Competition is open to juniors and seniors. (1905)

Brown Composition Prizes: Two prizes of approximately $70 and $50, the annual income of a fund of $1,431 established by Philip Greely Brown, of the Class of 1877, in memory of Philip Henry Brown, Esq., of the Class of 1851, are offered to members of the senior class for excellence in extemporaneous English composition. (1874)

General R. H. Dunlap Prize: This fund of $5,000 was established by Katherine Wood Dunlap in memory of her husband, Robert H. Dunlap, Brigadier General, U.S.M.C. The annual income is to be awarded to the student who writes the best essay on the subject of "service." (1970)

Horace Lord Piper Prize: A prize consisting of the income of a fund of $1,448 established by the Honorable Sumner Increase Kimball, Sc.D., of the Class of 1855, in memory of Major Horace Lord Piper, of the Class of 1863. It is awarded to that member of the sophomore class who presents the best "original paper on the subject calculated to promote the attainment and maintenance of peace throughout the world, or on some other subject devoted to the welfare of humanity." (1923)

Prizes in Creative Arts

Bowdoin Orient Prizes: Six cash prizes are offered by the Bowdoin Publishing Company and are awarded each spring to those members of *The Bowdoin Orient* staff who have made the most

significant contribution to the various departments of the *Orient* in the preceding volume. (1948)

Abraham Goldberg Prize: A prize of $10, from a bequest of Abraham Goldberg, is awarded annually to that member of the senior class who, in the opinion of a faculty committee of which the director of theater is chairman, has shown, in plays presented at the College during the two years preceding the date of award, the most skill in the art of designing or directing. (1960)

Hawthorne Prize: The income of a fund of $271 given in memory of Robert Peter Tristram Coffin, B.Litt. (Oxon.), Litt.D., of the Class of 1915, Pierce Professor of Literature, and in memory of the original founders of the Hawthorne Prize: Nora Archibald Smith and Mrs. George C. Riggs (Kate Douglas Wiggin), Litt.D. It is awarded each year to the author of the best short story. The competition is open to members of the sophomore, junior, and senior classes. (1903)

Masque and Gown Figurine: A figurine, "The Prologue," carved by Gregory Wiggin, is presented annually to the author of the prize-winning play in the One-Act Play Contest, and held by him until the following contest. (1937)

Masque and Gown One-Act Play Prizes: Cash prizes are awarded annually for excellence in various Masque and Gown activities, including playwriting, directing, and acting. (1934)

Alice Merrill Mitchell Prize: A prize consisting of the annual income of a fund of $2,095, given by Wilmot Brookings Mitchell, L.H.D., Litt.D., of the Class of 1890, Edward Little Professor of Rhetoric and Oratory, in memory of his wife, Alice Merrill Mitchell, is awarded annually to that member of the senior class who, in the opinion of a faculty committee of which the director of theater is chairman, has shown, in plays presented at the College during the two years preceding the date of award, the most skill in the art of acting. (1951)

Poetry Prize: A prize of $15 is given each semester for the best poem on Bowdoin written by an undergraduate. (1926)

George H. Quinby Award: Established in honor of "Pat" Quinby, for thirty-one years director of dramatics at Bowdoin College, by his former students and friends in Masque and Gown, the award is presented annually to the first-year member of Masque and Gown who makes an outstanding contribution through his

interest and participation in Masque and Gown productions. The recipient is selected by the director of theater, the theater technician, and the president of Masque and Gown. (1967)

Forbes Rickard, Jr., Poetry Prize: A prize consisting of the annual income of a fund of $555 given by a group of alumni of the Alpha Delta Phi Fraternity at the College in memory of Forbes Rickard, Jr., of the Class of 1917, who lost his life in the service of his country, is awarded to the undergraduate writing the best poem. (1919)

Mary B. Sinkinson Short Story Prize: A prize consisting of the annual income of a fund of $2,000 established by John Hudson Sinkinson, of the Class of 1902, in memory of his wife, Mary Burnett Sinkinson, is awarded each year for the best short story written by a member of the junior or senior class. (1961)

Awards for Character and Leadership

Curtis E. Chase Memorial Fund Award: A prize in memory of Curtis E. Chase, of the Class of 1965, the first Bowdoin alumnus killed in the Vietnam war. It consists of the income from the Curtis E. Chase Memorial Fund, having a balance of $4,395, which was established by his family and friends, and is awarded each fall without regard to financial need to a member of the incoming senior class who is also a member of the ROTC unit and who realizes "the importance of serving the United States to the best of his ability." The recipient is to be "active in sports and a student eager to learn" and "a man of promise in the qualities of civilian or military leadership that make for citizenship in the best American tradition." Selection is made by the dean of the College, the director of athletics, and the director of the ROTC program. (1969)

Leslie A. Claff Track Trophy: A trophy presented by Leslie A. Claff, of the Class of 1926, to be awarded "at the conclusion of the competitive year to the outstanding performer in track and field athletics who, in the opinion of the Dean, the Director of Athletics, and the Track Coach, has demonstrated outstanding ability accompanied with those qualities of character and sportsmanship consistent with the aim of intercollegiate athletics in its role in higher education." (1961)

Francis S. Dane Baseball Trophy: A trophy presented to the College by friends and members of the family of Francis S. Dane,

of the Class of 1896, is awarded each spring "to that member of the varsity baseball squad who, in the opinion of a committee made up of the Dean of the College, the Director of Athletics, and the Coach of Baseball, best exemplifies high qualities of character, sportsmanship, and enthusiasm for the game of baseball." (1965)

William J. Fraser Basketball Trophy: The William J. Fraser Basketball Trophy, presented by Harry G. Shulman in memory of William J. Fraser, of the Class of 1954, is awarded annually to that member of the basketball team who best exemplifies the spirit of Bowdoin basketball. The recipient is selected by the coach, the athletic director, and the dean of the College. (1969)

Andrew Allison Haldane Cup: A cup given by fellow officers in the Pacific in memory of Captain Andrew Allison Haldane, USMCR, of the Class of 1941, awarded to a member of the senior class who has outstanding qualities of leadership and character. (1945)

Lucien Howe Prize: A fund of $5,074, given by Lucien Howe, M.D., Sc.D., of the Class of 1870. Fifty dollars from the income is "awarded by the Faculty to that member of the Senior Class who, during his college course, by example and influence has shown the highest qualities of gentlemanly conduct and character, the award to be either in cash or in the form of a medal, according to the wish of the recipient." The remainder is expended by the president to improve the social life of the undergraduates. (1920)

Winslow R. Howland Football Trophy: A trophy presented to the College by his friends in memory of Winslow R. Howland, of the Class of 1929, is awarded each year to that member of the varsity football team who has made the most marked improvement on the field of play during the football season, and who has shown the qualities of cooperation, aggressiveness, enthusiasm for the game, and fine sportsmanship so characteristic of Winslow Howland. (1959)

Elmer Longley Hutchinson Cup: A cup given by the Chi Psi Fraternity at the College in memory of Elmer Longley Hutchinson, of the Class of 1935, is awarded annually to a member of the varsity track squad for high conduct both on and off the field of sport. (1939)

Samuel A. Ladd Tennis Trophy: A trophy presented by Samuel Appleton Ladd, Jr., of the Class of 1929, and Samuel Appleton Ladd III, of the Class of 1963, awarded to a member of the varsity

team who during the year by his sportsmanship, cooperative spirit, and character has done the most for tennis at Bowdoin. The award winner's name is to be inscribed on the trophy each year. (1969)

George Levine Memorial Soccer Trophy: A trophy presented by Lieutenant Benjamin Levine, coach of soccer in 1958, is awarded to that member of the varsity soccer team exemplifying the traits of sportsmanship, valor, and desire. (1958)

Robert B. Miller Trophy: A trophy, given by former Bowdoin swimmers, in memory of Robert B. Miller, coach of swimming, is awarded annually "to the Senior who, in the opinion of the coach, is the outstanding swimmer on the basis of his contribution to the sport." Winners will have their names inscribed on the trophy and will be presented with bronze figurines of swimmers. (1962)

Hugh Munro, Jr., Memorial Trophy: A trophy given by his family in memory of Hugh Munro, Jr., of the Class of 1941, who lost his life in the service of his country. It is inscribed each year with the name of that member of the Bowdoin varsity hockey team who best exemplifies the qualities of loyalty and courage which characterized the life of Hugh Munro, Jr. (1946)

Paul Nixon Basketball Trophy: Given to the College by an anonymous donor, and named in memory of Dean Paul Nixon, LL.D., L.H.D., in recognition of his interest in competitive athletics and sportsmanship, this trophy is inscribed each year with the name of the member of the Bowdoin varsity basketball team who has made the most valuable contribution to this team through his qualities of leadership and sportsmanship. (1959)

Col. William Henry Owen Premium: An award of the income of a fund of $663 established by Frederick Wooster Owen, M.D., in memory of his brother, Colonel William Henry Owen, A.M., of the Class of 1851, is awarded at Commencement "to some graduating student recognized by his fellows as a humble, earnest, and active Christian." (1916)

Wallace C. Philoon Trophy: Given by Wallace Copeland Philoon, M.S., Major General, U.S.A., of the Class of 1905, this trophy is awarded each year to a nonletter winner of the current season who has made an outstanding contribution to the football team. The award is made to a man who has been faithful in attendance and training and has given his best efforts throughout the season. (1960)

William J. Reardon Memorial Football Trophy: A replica of this trophy, which was given to the College by the family and friends of William J. Reardon, of the Class of 1950, is presented each year to a senior on the varsity football team who has made an outstanding contribution to his team and his college as a man of honor, courage, and ability, the qualities which William J. Reardon exemplified at Bowdoin College on the campus and on the football field. (1958)

Franklin Delano Roosevelt Cup: A cup, furnished by the Alpha Delta Phi Fraternity at the College, to be inscribed annually with the name of that member of the three lower classes whose vision, humanity, and courage most contribute to making Bowdoin a better college. (1945)

Harry G. Shulman Hockey Trophy: The Harry G. Shulman Hockey Trophy is awarded annually to that member of the hockey squad who has shown outstanding dedication to Bowdoin hockey. The recipient will be elected by a vote of the coach, the athletic director, and the dean of the College. (1969)

Prizes in Extracurricular Activities and Scholarship

James Bowdoin Cup: This cup, given by the Alpha Rho Upsilon Fraternity, is awarded annually on James Bowdoin Day to the student who in his previous college year has won a varsity letter in active competition and has made the highest scholastic average among the students receiving varsity letters. In case two or more students should have equal records, the award shall go to the one having the best scholastic record during his college course. The name of the recipient is to be engraved on the cup and the cup retained for the following year by that college group (fraternity or nonfraternity) of which the recipient is a member. (1947)

Orren Chalmer Hormell Cup: A cup, given by the Sigma Nu Fraternity at the College, in honor of Orren Chalmer Hormell, Ph.D., D.C.L., DeAlva Stanwood Alexander Professor of Government Emeritus, is awarded each year to a sophomore who, as a freshman, competed in freshman athletic competition as a regular member of a team, and who has achieved outstanding scholastic honors. A plaque inscribed with the names of all of the cup winners is kept on display. (1949)

Roliston G. Woodbury Memorial Award: Established in 1963 as the Roliston G. Woodbury Award by the Textile Veterans Asso-

ciation to honor the contributions of Roliston G. Woodbury, of the Class of 1922 and a member of the Board of Overseers, to the textile industry, it was renamed the Roliston G. Woodbury Memorial Award following his death in 1968. The annual award consists of a $50 U.S. Savings Bond and a bronze medallion and is awarded to a student on the basis of scholarship, leadership, and extracurricular activities. (1963)

Military Prizes

The General Philoon Trophy: A cup given by Wallace Copeland Philoon, M.S., Major General, U.S.A., of the Class of 1905, is awarded each autumn to that member of the senior class who has made the best record at the summer camp of the ROTC. (1951)

The Pershing-Presnell Sword: A sword presented in honor of General John J. Pershing to Major John Finzer Presnell, Jr., '36, as the First Captain of the Class of 1940 at the United States Military Academy. Following the death of Major Presnell in the Second World War, his parents gave the sword to Bowdoin College. The Pershing-Presnell Sword is assigned to the Cadet Colonel commanding the Bowdoin College Battle Group, Reserve Officers' Training Corps, and the shield bearing the sword is inscribed with his name. (1951)

Miscellaneous Prizes

Abraxas Award: A plaque is awarded to the school sending three or more graduates to the College, whose representatives maintain the highest standing during their freshman year.This award was established in 1915 by the Abraxas Society. (1915)

Student Council Cup: A cup, formerly called the "Friar's Cup" and now given by the Student Council, is awarded at the conclusion of each semester to that fraternity which has attained the highest academic standing during the semester. (1911)

Harvey Dow Gibson Memorial Trophy: A cup in memory of Harvey Dow Gibson, LL.D., of the Class of 1902, is given by the Bowdoin chapter of the Theta Delta Chi Fraternity. It is awarded each fall to that fraternity which has shown the greatest improvement in its scholastic standing during the previous academic year. (1951)

The Peucinian Cup: A cup, in honor of the Peucinian Society, Bowdoin's first literary-social club (1805), is given by the alumni

of Bowdoin fraternity chapters and awarded each February and June to the fraternity whose freshman delegation achieves the highest academic standing for the previous semester. (1938)

PHI BETA KAPPA

The Phi Beta Kappa Society, national honorary fraternity for the recognition and promotion of scholarship, was founded at the College of William and Mary in 1776. The Bowdoin Chapter (Alpha of Maine), the sixth in order of establishment, was founded in 1825.

Election to the Society is on the basis of scholarly achievement, in estimating which, consideration is given primarily to grades in courses, secondarily (at graduation) to departmental honors. Elections may be held twice a year—in February and June. Candidates must have completed twenty-four semester units for college credit.

JAMES BOWDOIN DAY

Named in honor of the earliest patron of the College, James Bowdoin Day was instituted in 1941 to accord recognition to those undergraduates who distinguish themselves in scholarship. At a convocation of the entire college, the exercises consist of the announcement of awards, the presentation of books, a response by an undergraduate, and an address.

The James Bowdoin Scholarships, carrying no stipend, are awarded to undergraduates who have completed two semesters' work, in recognition of high scholarship in their coursess to date.

A book, bearing a replica of the early college bookplate serving to distinguish the James Bowdoin Collection in the Library, is presented to every undergraduate who has carried a full course program and has received a grade of High Honors in each of his courses during the last academic year.

THE FACULTY DEVELOPMENT FUND

This fund, now amounting to approximately $203,913, was established by Charles Austin Cary, LL.D., of the Class of 1910. The income from the fund is expended each year "for such purpose or purposes, to be recommended by the President and approved by the Governing Boards, as shall be deemed to be most effective in maintaining the caliber of the Faculty." These purposes may include, but not be limited to, support of individual research grants, or productive use of sabbatical leaves, added compensation for in-

dividual merit or distinguished accomplishment, and other incentives to encourage individual development of teaching capacity, and improvement of faculty salaries.

FACULTY RESEARCH FUND

This fund, founded by the Class of 1928 on the occasion of its twenty-fifth anniversary, is open to additions from other classes and individuals. The interest from the fund is used to help finance research projects carried on by members of the Faculty.

SUMNER TUCKER PIKE FUND

This fund was established by an anonymous donor in 1966 in recognition of the many significant services to the country and to the College of Sumner T. Pike, LL.D., of the Class of 1913, the fund to be used in accordance with the wishes of the donor that "the principal and/or income of this fund be applied at the discretion of the President of Bowdoin College, preference to be given to support of research and/or publications of studies in the social sciences (including history)."

UNDERGRADUATE RESEARCH ASSISTANCE

Surdna Foundation Undergraduate Research Fellowship Program

An undergraduate research fellowship program that was established in 1959 was redesignated in 1968 the Surdna Foundation Undergraduate Research Fellowship Program in recognition of two gifts of the Surdna Foundation, of Yonkers, New York. The income of these gifts underwrites approximately three-fourths of the program's costs. Under this program, ten fellowships may be awarded annually to highly qualified seniors. Each Surdna Fellow will participate, under the direction of a faculty member, in a research project in which that faculty member is independently interested.

The purpose of the program is to engage the Fellow directly and responsibly in a serious attempt to extend man's knowledge in his field of interest and competence. Each project to which a Fellow is assigned must therefore justify itself independently of the program as a potential contribution to knowledge, and the Fellow is expected to be an actual participant in the research and not, for example, a mere observer or helper. The nature of the project will differ from discipline to discipline, but all should give the Fellow

first-hand acquaintance with productive scholarly work. Should the results of the research be published, the faculty member in charge of the work will acknowledge the contribution of the Fellow and of the program; and in some instances it may be appropriate that the Fellow be named as coauthor of the publication.

The Fellows will be chosen each spring for the following academic year. Awards will be made on the basis of the candidate's academic record and departmental recommendation, his particular interests and competence, and the availability at the College of a research project commensurate with his talents and training. Acceptance of a Fellowship does not preclude working for Honors. Since the aim of the program is to give special training to especially gifted students, the financial need of a candidate will not enter into the awarding of the Fellowships; but Fellows are obligated to refrain from all other part-time employment during the academic year.

List of Fellows and Projects: 1971-1972

Biology

Robert L. Bassett '72, "Measurement of Very Rapid Energy-Conserving Reactions by Stop-Flow and Temperature Jump Techniques" (with Professor John L. Howland).

Matthew R. Kaufman '72, "Energy Metabolism and Ion Transport in Isolated Intestinal Mucosal Cells" (with Professor C. Thomas Settlemire).

Chemistry

Craig G. Cogger '72, "The Molecular Structure Determination of Sesquiterpene Alcohols" (with Professor Dana W. Mayo).

Thomas G. Harrison '72, "Beneficial Methods of Sewage Sludge Disposal" (with Professor David A. Wheatland).

Economics

Thomas R. Friedlander '72, "The Development and Testing of Environmental Quality Management Games" (with Professor A. Myrick Freeman III).

Government

C. Mitchell Goldman '72, "Voting Behavior in a Congressional Election: The Fifth District of New York in 1970" (with Professor Richard E. Morgan).

Mathematics

George H. Butcher III '72, "An Investigation of an Infinite Class of Finite Two-Groups" (with Professor James E. Ward III).

Frederic W. Lambie '72, "A Random Walk Model of International Trade" (with Professor Robin B. S. Brooks).

Physics

Richard A. Cohen '72, "The Electrical Properties of Cell Membranes" (with Professor William T. Hughes).

John A. Rhodes '72, "Hyperfine Interactions in Non-Kramers Ions" (with Professor Thomas L. Bohan).

The Alfred O. Gross Fund

This fund, established by Alfred Otto Gross, Ph.D., Sc.D., Josiah Little Professor of Natural Science, and members of his family, is designed to assist worthy students in doing special work in biology, preferably ornithology. Income from the fund may be used for such projects as research on Kent Island, travel to a given region or library for particular work, purchase of special apparatus, attendance at an ornithological congress or other scholarly gatherings, and publication of the results of research. Although the fund is administered by Bowdoin College, assistance from the fund is not limited to Bowdoin students.

Edward E. Langbein Summer Research Grant

An annual gift of the Bowdoin Fathers Association is awarded under the direction of the president of the College to undergraduates or graduates to enable the recipients to participate in summer research or advanced study directed towards their major field or life work. Formerly the Bowdoin Fathers Association Fund, the grant was renamed in 1970 in memory of a former president and secretary of the association.

Degrees Conferred in August 1970

MASTER OF ARTS

Grace Arline Ankney
Marcia Peterson Bishop
Elizabeth Louise Bliss
DeForest E. Heffron
John Martin Hoopes
Stanley Potter Houck
Charles Edgar Ledbetter
Arthur Lawrence McDaniel
Sister Elizabeth McMullen
Mary Theresa Naughton
Edward Kimball Roundy
Elizabeth Anne Sousa
David Gorham Strachan
Judson Morgan Stuart
John Philip Wallo
Roy Edward Whalen
Robert Daniel Wright

Degrees Conferred in June 1971

BACHELOR OF ARTS

Richard Newton Abbott, Jr.
Stuart Henry Adams, Jr.
Walter Allen Adams III
Jacob David Adelson '70
John Duke Albanese
Robert Christopher Almy
Christopher Boyden Alt
John William Amrol
Robert Weeks Armstrong III
John Walter Asatrian
Gregory Auditore
Arthur Fredric Auer
James Patrick Baker
Harry Heath Baldwin IV '68
Parker Loring Barnes, Jr.
Peter Douglas Barnhart
John Russell Bass II
Charles Andrew Batt
Roland Beaudoin
William Arthur Beckler III
Joel Beckwith
Gary Preston Beem
George Ambrose Belcher, Jr.
Joel Mitchell Bell
John Wallace Benson
Robert Joseph Bergeron

David Scott Berreth
Steven John Beslity '70
Roger Sawyer Bevan
Douglas Emery Bird
Arthur Frederick Blake
Marc Samuel Blesoff
James Donald Block
Raymond Noel Bolduc
Charles Cameron Bond, Jr.
George Newton Bowden '68
David Alan Bradeen
William Sumner Branting
Richard Phillips Breed III
John Michael Brewer
Gary Christian Briggs
Bruce Row Brown, Jr.
Thomas Atwood Bubier
Stephen Buckley, Jr.
Frederick Robinson Burrage
Wesley Kenneth Canfield
Alfred John Cappellini, Jr.
Richard Alan Caras
Stephen Joseph Carey
Stephen Scott Carey
Thomas Stephen Carey
Robert Brent Carpenter
Steven Chandler Carter
John Doble Cary '68
Michael Scott Cary
Dennis John Casey
Lloyd Wesley Chase
Raymond Arthur Chouinard
Lawrence David Cohan
John Frederick Cook, Jr.
Leonard Wright Cotton
Miles Coverdale, Jr.
John Hodgman Craig, Jr.
Jeffrey Parkman Cross '70
Mark Loring Cuneo
Gordon Richard Cutten
James Dougal Darrow
Roger William Dawe
Chris Gus Dematatis
Harry Dean Demeter
Douglas Edward Dennett
Albert Andrew Dobbins
Tucker Coffin Drummond
Mark Elliot Dunlap
Simon Pierpoint Edkins
Peter Richard Ellis
Anthony Ferreira
James Vincent Finniss
Donald Lloyd Fisher
John Seymour Fonville, Jr.
Richard Donald Foulkes, Jr.
Peter Frailey
David Scott Frederick
Martin Friedlander
Stephen Andrew Fulchino
Peter Manning Gibson
Terrence Patrick Gilbert
Stephen Ernest Glinick
Carter Crittenden Good
Edward Matthew Good
Harold Mark Goralnick
David Frank Gordon
Stephen Reed Gordon
Gordon Francis Grimes
Mark Layton Haley
Robert Joseph Hall, Jr.
Stephen Weston Hanscom
Corey Bradshaw Hanson '70
William Charles Harpin
Michael Gerald Harrington
James Michael Heller
Ronald Leon Hines
John Charles Holmes '70
Thomas Robert Huleatt III
Paul William Hurd II
Michael Brooks Jackson
Susan Dene Jacobson
Gregory Roger Janson
Kent William Johnson
Robert Cecil Johnson, Jr.
Steven George Johnson
Ronald Earl Joiner, Jr. '70

Leonard Stephen Jolles
Francis Joseph Keefe, Jr.
Thomas Montgomery Keith
Alfred Brian Kelleher
John Joseph Keohane
Stephen Bonney Kern
John Christian Kessler
Johnny Pierre Khoury '70
Daniel Stanley Konieczko '70
Peter Alan Korstad
Issoufou Kouada
Robert Arthur Kullen
Guy Paul LaDouceur, Jr.
David Michael LaFauci
Isaac Lagnado
Kevin Michael Lancaster
Ronald Arthur Lander '52
Frederick Langerman
Owen Wesley Larrabee
James Michael Lavery
Robert Thomas Legere
Richard James LeGrow
Richard Stockford Leonard
Bruce Clyde Levine
Raymond Linnell, Jr.
John Fortin Locke '70
Hugh William Lockhart
William Ellsworth Loring III
Herbert Joseph Lovett, Jr.
David Blaine Lyman
John Francis McClellan
Patrick Joseph McDonald
Douglas Mark MacKinnon
John Cornelius McPhillips
Lindsay Tyrone McQuater
David Bliss Malcom
James Jeffrey Maloney
Thomas Nathan Mandel
Parker Mann, Jr.
Stephen Gregory Matthews
Bradford Stephen Mauro
Peter Francis Mejstrick
Robert Charles Mellors, Jr.
William Michael Menning
Alan Phillip Meyer
Michael Michelson
Lee Clark Moulton
Peter Harding Mulcahy
Douglas Clifton Munsey, Jr.
J. Bruce Murphy
John Dignam Murphy
David Ross Murray
Robert Fulton Murray III
Robert Edward Nash '69
Robert Stanley Newman '70
Michael Constantine
Niekrash, Jr.
Daniel Ashton Noiles '70
Stuart Roode Norman, Jr.
Stephen Francis Oakes
Geoffrey Bruce Ovenden
Stephen Charles Packard
Anthony John Pappalardo
Mark Timothy Parker
Timothy Judson Parsons
Donald Wayne Patrick
William Clifford Paulson
Robert Maxwell Petrie '69
John Timothy Philipsborn
Charles Joseph Piasecki
Christopher Alden Pierce
Stephen Edward Rathmell
James Roland Reed
Neill Daniel Reilly
William Beach Renner, Jr.
Kerry Gene Reynolds
Burton Jaastad Richardson
Boyd Roberts II '70
John Russell Roberts
Floyd Webster Rudmin '68
Kenneth David Ryan
Richard Edward Schuberth
Milton Donald Seekins
Gordon Ware Sewall
Peter Sewall
Jeffrey Mitchell Sexton

Edward Whittemore Shattuck
Roger Harris Shelling
Brian Douglas Sheridan
George Edward Simon '70
Roy David Snable
William Allen Spencer
Phillip Ray Steer
Harold Burr Stevens, Jr.
Robert Gordon Stewart
William Thomas Stewart
Joseph Alexander Stupak, Jr.
Julian Lockwood Sweet
John Michael Talbot
Earl Roy Taylor
Richard Newman Terry, Jr.
Charles Edward Thompson
David Lawrence Thurlow
Benjamin Rush Toland
Nicholas Peter Tsapatsaris
John Joseph Tullish III
Robert Carroll Turner
Robert Nelson Turner, Jr.
Luiz Fernando Valente
George Frederick Van Cott
Richard Nelson Van Santvoord
William Joseph Vaughn
Ted Wright Verrill
George Marshall Walker II
John Douglas Walker II
Jeffrey Harrison Waring
Randal Edward Watkinson
Thomas Brooks Wheeler
Frederic Colby Whitcomb
Edwin Santee Whitford
Charles Dearborn Wick
John Noel Wight
Paul Henry Wiley
Craig Whitcomb Williams
Richard Alan Wilson
Andrew Muller Wiswell, Jr.
Philip Gordon Worrick, Jr.
Richard Warwick Zeamer
Frederick Tilton Zikorus

MASTER OF ARTS

Richard Arthur Bloxam
Alison Louise Bristol
Sister Margaret Ann Bulger
Leo Edward Burque
John Richard Cupal
John Clement Davis III
Daniel Lee Feldhaus
David Charles Ferbrache
Anne Courtney Gardner
Charles Kenneth Mansuy, Jr.
Dorothy Martin
Norman Edward Trott
Calvin Wolcott

RECIPIENTS OF HONORARY DEGREES

Doctor of Education

John Spencer Holden

Doctor of Fine Arts

Louise Berliawsky Nevelson

Doctor of Laws

Roy Anderson Foulke
Donald Raymond McNeil
Whitney Moore Young, Jr.
(Posthumous Award)

Doctor of Science

Albert Abrahamson

Master of Arts

Harry George Shulman

Appointments, Prizes and Awards

PHI BETA KAPPA ELECTIONS

Class of 1971

Richard Newton Abbott, Jr.
John Michael Brewer
Lawrence David Cohan
Harry Dean Demeter
Stephen Ernest Glinick
Gordon Francis Grimes
Stephen Weston Hanscom
Kent William Johnson
Bruce Clyde Levine
Mark Timothy Parker
Timothy Judson Parsons
Donald Wayne Patrick
Richard Edward Schuberth
Nicholas Peter Tsapatsaris
Luiz Fernando Valente
Richard Warwick Zeamer

Class of 1972

Robert Lawrence Bassett
David James Bradshaw
Mark Dennis Challberg
Craig George Cogger
John Joseph Huszonek
James Linden Lefferts
William Roger Meservey

HONORARY APPOINTMENTS

Summa Cum Laude

John Michael Brewer
Lawrence David Cohan
Stephen Ernest Glinick
Gordon Francis Grimes
Kent William Johnson
Bruce Clyde Levine
Mark Timothy Parker
Luiz Fernando Valente
Richard Warwick Zeamer

Magna Cum Laude

Richard Newton Abbott, Jr.
Arthur Fredric Auer
Bruce Row Brown, Jr.
Wesley Kenneth Canfield
Miles Coverdale, Jr.
Harry Dean Demeter
Donald Lloyd Fisher
Stephen Weston Hanscom
Susan Dene Jacobson
Francis Joseph Keefe, Jr.
Alfred Brian Kelleher
Stephen Bonney Kern
Richard James LeGrow
Patrick Joseph McDonald
Robert Edward Nash '69
Timothy Judson Parsons
Donald Wayne Patrick
Floyd Webster Rudmin '68

Richard Edward Schuberth
Roger Harris Shelling
Richard Newman Terry, Jr.
David Lawrence Thurlow
Nicholas Peter Tsapatsaris
Robert Nelson Turner, Jr.

Cum Laude

Christopher Boyden Alt
Roland Beaudoin
John Wallace Benson
John Doble Cary '68
Raymond Arthur Chouinard
James Dougal Darrow
Douglas Edward Dennett
Albert Andrew Dobbins
David Scott Frederick
Stephen Andrew Fulchino
Carter Crittenden Good
Ronald Earl Joiner, Jr. '70
Leonard Stephen Jolles
Kevin Michael Lancaster
Herbert Joseph Lovett, Jr.
David Blaine Lyman
John Francis McClellan
David Bliss Malcom
James Jeffrey Maloney
William Michael Menning
Stephen Charles Packard
William Clifford Paulson
John Timothy Philipsborn
Peter Sewall
Brian Douglas Sheridan
Roy David Snable
William Thomas Stewart
Benjamin Rush Toland
Frederic Colby Whitcomb
Charles Dearborn Wick
Richard Alan Wilson

HONORS IN SUBJECTS AND TITLES OF THESES

ART: *Honors,* Joel Beckwith, *Sixteen Etchings and Some Drawings.*

Peter Alan Korstad, *A Review of My Art and the Paintings Which Represent It.*

BIOLOGY: *Highest Honors,* Lawrence David Cohan, *Development of the Red Blood Cell during Iron-Deficiency Anemia: A Review of the Literature and Observations by Light and Electron Microscopy. Also, Suggestions for Electron Microscopy.*

Martin Friedlander, *Light Microscopical and Ultrastructural Studies Related to the Behavior and Development of Embryonic Mouse Skeletal Muscle,* in vitro.

High Honors, David Lawrence Thurlow, *Notes on Oceanographic Research and Surface Plankton Distribution from Cruise of the* Atlantis II—*59.*

Robert Nelson Turner, Jr., *Membrane Translocation Processes in Cellular and Subcellular Systems.*

Honors, Charles Cameron Bond, Jr., *The Movement of Corvidae and Interspecific Competition between Crows and Ravens.*

Simon Pierpoint Edkins, *A Behavioral Study of the Mouse: Population Density and Emotional Stability.*

Roy David Snable, *A Study of the Neurons of the Medulla of* Cyprinus carpio *with Particular Reference to the Mauthner Apparatus.*

John Joseph Tullish III, *Osmoregulation in* Homarus americanus, Cancer borealis, Cancer irroratus, *and* Pandalus borealis.

CHEMISTRY: *High Honors,* Richard Newton Abbott, Jr., *The Petrology of Lower Sillimanite Grade Pelites in the Small Point Quadrangle, Maine.*

Donald Wayne Patrick, *The Isolation and Structural Determination of a New Alcohol from Copaiba Oil.*

Honors, Douglas Edward Dennett, *Isolation and Identification of a Pteridine from a Blue-Green Alga.*

ECONOMICS: *Honors,* James Vincent Finniss, *Money—Who Needs it? A Study of Bank Credit Cards.*

Richard James LeGrow, *Application of the Short-Run Consumption Function to the Nixon Administration Estimate of Consumption Expenditures for 1971.*

ENGLISH: *Honors,* Kevin Michael Lancaster, *Rhythmic Form and Free Verse.*

FRENCH: *Highest Honors,* Luiz Fernando Valente, *Temps de Silence: Camus et la tradition romanesque.*

Honors, David Bliss Malcom, *The Concept of Action in Malraux, Sartre, and the Surrealists.*

GEOLOGY: *Honors,* Robert Weeks Armstrong III, *A Statistical Analysis of Cross-Joint-Bedding Relations in the Northern Half of the Orr's Island Quadrangle, Maine.*

GERMAN: *Highest Honors,* Arthur Fredric Auer, *Hölderlin's* Empedokles: *A Study of Its Development, Its Thematic Structure, and Its Parallels in Goethe's* Faust.

John Michael Brewer, The Nibelungenlied *and Other Sources as Bases of Dramatic Works of Fouqué, Wagner, Hebbel, and Ibsen.*

GOVERNMENT: *High Honors,* Bruce Clyde Levine, *The Just Political Order: The Thought of John Locke as Approached from the Primary Consideration of His Educational Writings.*

Honors, David Frank Gordon, *The Roots of the Chinese Cultural Revolution: Major Aspects.*

John Christian Kessler, *Domestic Policy Formulation and Presidential Power: The Domestic Council.*

David Bliss Malcom, *C. Wright Mills: Rebel Sociologist.*

HISTORY: *Highest Honors,* Gordon Francis Grimes, *A History of Dover, New Hampshire, 1790-1835.*

High Honors, Robert Brent Carpenter, *Legal Services in a War on Poverty.*

Charles Dearborn Wick, *The Time Past Believing.*

Andrew Muller Wiswell, Jr., *"The Irish Are Inflamed to the Point of Absolute and Brutal Insanity": The New York Draft Riots of 1863.*

Honors, Terrence Patrick Gilbert, *The Development of Protest Literature in the Soviet Union, 1953-1970.*

Paul William Hurd II, *Hofstadter: The Historian as Social Skeptic.*

John Timothy Philipsborn, *Thomas Hobbes: A Study with Reference to His Life and Thought.*

William Thomas Stewart, *The Trieste Question and the Italo-Yugoslav Boundary, 1943-1954.*

William Joseph Vaughn, *The Growth of National Socialism in the Free City of Danzig, 1933-1939.*

MATHEMATICS: *Highest Honors,* Kent William Johnson, *A Condition Necessary and Sufficient for the Removal of a Root.*

PHILOSOPHY: *High Honors,* Richard Warwick Zeamer, *A Theory of Universals, with an Investigation of the Possibility of Constructing a System of Mathematics not Employing Conventional Logic.*

Honors, Stephen Andrew Fulchino, *The Sixteenth-Century Neo-Stoic Revival: A Study of Lipsius and Du Vair and Their Ancient Predecessors, with a Brief Comparison with Spinoza.*

PHYSICS: *Honors,* Parker Mann, Jr., *A Study of Light Diffracting Photographic Emulsions.*

PSYCHOLOGY: *Highest Honors,* Francis Joseph Keefe, Jr., *The Effect of Preconditioning and the Effect of Feedback upon Eyelid Conditioning.*

Richard Edward Schuberth, *Release from Proactive Inhibition in Sentences.*

Honors, Michael Michelson, *The Preference for Earned* vs. *Free Food and Frustration.*

Benjamin Rush Toland, *Acoustic Similarity and High-Speed Scanning for Recognition in Short-Term Memory.*

RELIGION: *Honors,* Tucker Coffin Drummond, *Soren Kierkegaard: Christianity as the True Humanity.*

AWARDS

CLASS OF 1922 GRADUATE SCHOLARSHIP: Edward Matthew Good.

CHARLES CARROLL EVERETT SCHOLARSHIP: Richard Edward Schuberth.

TIMOTHY M. HAYES FUND SCHOLARSHIP: Bradley Alan Bernstein '69.

GUY CHARLES HOWARD SCHOLARSHIP: Richard Newton Abbott, Jr.

HENRY W. LONGFELLOW GRADUATE SCHOLARSHIP: Luiz Fernando Valente.

GALEN C. MOSES GRADUATE SCHOLARSHIP: Mwindaace Nkongwa Siamwiza '69.

O'BRIEN GRADUATE SCHOLARSHIPS: Bradley Alan Bernstein '69, Albert Andrew Dobbins, David Frank Gordon, John Christian Kessler, Bruce Clyde Levine, Stephen Charles Packard.

LEE G. PAUL SCHOLARSHIPS: Fred Elmore Haynes III '67, Thomas Arthur Johnson '69.

NATHAN WEBB RESEARCH SCHOLARSHIP: David Lawrence Bulow '69.

ARTHUR D. AND FRANCIS J. WELCH SCHOLARSHIP (For Graduate Study): Raymond Arthur Chouinard.

BROWN MEMORIAL SCHOLARSHIPS: Frederick Robinson Burrage, John Joseph Huszonek '72, Charles Whitney Redman III '73.

Fund for Theological Education, Inc., Fellowship: Peter Harding Mulcahy.

Keasbey Memorial Foundation Scholarship: Gordon Francis Grimes.

Watson Fellowship: Robert Cecil Johnson, Jr.

Commencement Speakers: Mark Timothy Parker, Martin Friedlander, Timothy Judson Parsons, Susan Dene Jacobson.

Alternate Commencement Speaker: Gordon Francis Grimes.

Goodwin Commencement Prize: Timothy Judson Parsons.

Class of 1868 Prize: Susan Dene Jacobson.

Almon Goodwin Phi Beta Kappa Prize: Richard Warwick Zeamer.

George Wood McArthur Prize: Kent William Johnson.

Leonard A. Pierce Memorial Prize: Bruce Clyde Levine.

Curtis E. Chase Memorial Prize: Raymond Noel Bolduc.

Andrew Allison Haldane Cup: Roger William Dawe.

Lucien Howe Prize: Stephen Bonney Kern.

Col. William Henry Owen Premium: John Seymour Fonville, Jr.

Franklin Delano Roosevelt Cup: Vincent Anthony DiCara '72.

Class Marshal: John Francis McClellan.

Copeland-Gross Biology Prize: George Marshall Walker II.

Donald and Harriet S. Macomber Prize in Biology: Martin Friedlander.

American Chemical Society—Undergraduate Award in Analytical Chemistry: Thomas George Harrison '72.

American Institute of Chemists—Student Medal: Donald Wayne Patrick.

Merck Index Award: John Lewis Myers '72.

Philip W. Meserve Prize in Chemistry: Craig George Cogger '72.

Society of Applied Spectroscopy Student Award: Raymond Patrick Johnson '73.

U.S. Chemical Rubber Company Award: William Errol Offenberg '74.

Nathan Goold Classics Prize: Harry Dean Demeter.

Noyes Political Economy Prize: James Vincent Finniss.

Academy of American Poets' Prize: Eric LaRue Hunter '73.

Hawthorne Prize: Herbert Joseph Lovett, Jr.

Poetry Prize: Charles Warren Tucker '72.

Pray English Prize: Luiz Fernando Valente.

Forbes Rickard, Jr., Poetry Prize: Roderick Loney '74.

Mary B. Sinkinson Short Story Prize: Herbert Joseph Lovett, Jr., Patrick Joseph McDonald.

Bertram Louis Smith, Jr., Prize in English Literature: David James Bradshaw '72.

Edgar O. Achorn Debating Prizes: 1st: Joseph Carroll Cove '73, David Allen McCarthy '73; 2nd: Gilbert Ware Lewis '74, James Allen Morgan' 74.

DeAlva Stanwood Alexander Declamation Prizes: 1st: James Edward Lyons '74; 2nd: Richard Ian Lustig '74.

Bradbury Debating Prizes: 1st Award: George Minott Clifford III '74, Christopher Ward Gahran '74; 2nd Award: Joseph Carroll Cove '73, Kenneth Vincent Santagata '73.

Hiland Lockwood Fairbanks Prizes in Public Speaking: *(Speech 1)* 1st: George Hench Butcher III '72, 2nd: Philip Gary Lipson '74; *(Speech 5):* Richard Ian Lustig '74; *(Speech 6):* David Allen McCarthy '73.

Stanley Plummer Prizes in Public Speaking: *(Speech 1)* 1st: George Minott Clifford III '74; 2nd: Richard Kent Mastain, Jr. '74.

Goodwin French Prize: Kevin Scott Wellman '74.

Charles Harold Livingston Honors Prize in French: Luiz Fernando Valente.

The Old Broad Bay Prizes in Reading German: Those who began German in college: (1) William Michael Menning, (2) Rodney Clarence Piette '72, (3) Stephen Oliver Holmes '72. Those who began German in high school: (1) James Donald Block, (2) Paul Rice '73, (3) William Margolin '67.

Philo Sherman Bennett Prize for Best Essay on Principles of Free Government: Bruce Clyde Levine.

Fessenden Prize in Government: Paul Henry Wiley.

Sewall Greek Prize: Randal Joseph Leason '73.

Class of 1875 Prize in American History: Gordon Francis Grimes.

Cyrus Hoover Award: Gordon Francis Grimes.

Hannibal Hamlin Emery Latin Prize: Nicholas Peter Tsapatsaris.

Sewall Latin Prize: Lewis David Epstein '73.

Edward Sanford Hammond Mathematics Prizes: Kent William Johnson, Richard Warwick Zeamer.

Smyth Mathematical Prizes: Kent William Johnson, Richard Warwick Zeamer, Daniel Rice Corro '73.

Sue Winchell Burnett Music Prize: Herbert Joseph Lovett, Jr.

Sumner I. Kimball Prize for Excellence in Natural Sciences: Lawrence David Cohan.

Edwin Herbert Hall Physics Prize: Frank Andrew deGanahl '73.

Edward E. Langbein Summer Research Grant: Daniel Rice Corro '73.

James Bowdoin Cup: Robert Lawrence Bassett '72.

Orren Chalmer Hormell Cup: Donald Egon Hoenig '73.

Roliston G. Woodbury Memorial Award: John Francis McClellan.

Leslie A. Claff Track Trophy: John Russell Roberts.

Francis S. Dane Baseball Trophy: *(For 1971)* Michael Constantine Niekrash, Jr.; *(For 1970)* Robert Stanley Newman '70.

William J. Fraser Basketball Trophy: Russell Kimball Outhuse '72.

Winslow R. Howland Football Trophy: John Wallace Benson.

Elmer Longley Hutchinson Cup (Varsity Track): John Russell Roberts.

Samuel A. Ladd Tennis Trophy: William Clifford Paulson.

George Levine Memorial Soccer Trophy: Thomas Robert Huleatt III.

Robert B. Miller Trophy (Swimming): Kenneth David Ryan.

Hugh Munro, Jr., Memorial Trophy (Hockey): Robert Arthur Kullen.

Paul Nixon Basketball Trophy: Stephen Joseph Carey.

Wallace C. Philoon Trophy (Football): James Henry Baird, Jr. '73.

William J. Reardon Memorial Football Trophy: Roger William Dawe.

Harry G. Shulman Hockey Trophy: Robert Maxwell Petrie '69.

Masque and Gown One-Act Play Prize: Stephen Andrew Fulchino.

Abraham Goldberg Prize: Leonard Stephen Jolles.

Alice Merrill Mitchell Award for Acting: Earl Roy Taylor.

George H. Quinby Award: William Michael Randviir '74.

Bowdoin Orient Prizes: Saul Philip Greenfield '73, John Medeiros '73 *(Editing);* Richard James Patard '74 *(Freshman Writing);* Mark Lee Silverstein '73 *(News Writing);* Frederick Langerman *(Business).*

The Pershing-Presnell Sword: William Michael Menning.

The General Philoon Trophy: Raymond Noel Bolduc.

Reserve Officers' Training Corps Awards: Raymond Noel Bolduc, Francis Joseph Keefe, Jr., Daniel Stanley Konieczko '70, William Michael Menning, William Alfred Burroughs '72, George Hench Butcher III '72, Dale Butler Flora '72, Christopher Holleman '73, Charles Andrews Jones III '73, Harry

George Simmeth, Jr. '73, David R. Tyrrell '73, Thomas Arthur Varley '73, David Sellwood Bushy '74, Maurice Arthur Butler '74, David James Jordan '74.

Distinguished Military Graduates: Raymond Noel Bolduc, Francis Joseph Keefe, Jr., William Michael Menning.

Armed Forces Commissions: William Michael Menning *(Second Lieutenant, Regular Army of the United States);* Raymond Noel Bolduc, Francis Joseph Keefe, Jr., Daniel Stanley Konieczko, John Michael Talbot *(Second Lieutenant, United States Army Reserve);* Stephen Scott Carey *(to be commissioned Second Lieutenant, United States Army Reserve, upon completion of 1971 Army ROTC summer camp).*

JAMES BOWDOIN SCHOLARS

1970-1971

Stephen Ashod Andon '73
Mark Andrew Ashford '73
Arthur Fredric Auer '71
Robert Lawrence Bassett '72
Peter Allen Bieger '73
David James Bradshaw '72
John Michael Brewer '71
William Roger Bryant '73
Timothy Henry Buchman '72
Charles Rinker Buck '73
William Alfred Burroughs '72
George Hench Butcher III '72
Wesley Kenneth Canfield '71
Thomas Edgar Carbonneau '72
Mark Dennis Challberg '72
Alan Michael Christenfeld '73
Matthew Edward Clenott '72
Craig George Cogger '72
Lawrence David Cohan '71
Richard Alan Cohen '72
Daniel Rice Corro '73
Miles Coverdale, Jr. '71
Joseph Martin Cusack '72
Geoffrey Derek Dabb '73
Harry Dean Demeter '71
Stephen Anthony DeVasto '72
Jeffrey Newell Drummond '72
Roger Dean Eliason '72
Lewis David Epstein '73
Blair Courtney Fensterstock '72
Donald Lloyd Fisher '71
Robert James Foley '72
James Lester Fox, Jr. '73
Ralph Anthony Gambardella '73
Thomas John Garabedian '72
John Patrick Garrett '73
Jeffrey John Gill '73
Stephen Ernest Glinick '71
Hilliard Todd Goldfarb '73
Saul Philip Greenfield '73
Gordon Francis Grimes '71
Gary John Hallee '72
Stephen Weston Hanscom '71
Thomas George Harrison '72
Donald Egon Hoenig '73
John Joseph Huszonek '72
John Joseph Jacobson '73

Mark Stevan Jelavich '72
Andrew Arthur Jeon '73
Kent William Johnson '71
Glenn Scott Kaplan '72
Matthew Robert Kaufman '72
Alfred Brian Kelleher '71
William Webster Kelly '73
Brian Gerard Kennedy '73
Stephen Bonney Kern '71
Stephen John Knerly, Jr. '72
Thomas Stanley Kosakowski '73
Frederic Williams Lambie '72
Jeffrey Carleton Lee '73
James Linden Lefferts '72
Bruce Clyde Levine '71
Donald Bruce Lowry '72
Kirk John MacDonald '73
Patrick Joseph McDonald '71
William Roger Meservey '72
Alexander Leon Mesrobian '72
Rogers Blood Miles '73
David Lathrop Morse '73
Mark Timothy Parker '71
Donald Wayne Patrick '71
Thomas Francis Peckenham III '73
Rodney Clarence Piette '72
Kenneth Vincent Santagata '73
Richard Edward Schuberth '71
David Francis Sheehan '72
David Michael Shook '73
Ernest Max Stern '72
William Thomas Stewart '71
Stevan Lemont Sylvester '73
Charles Jeffrey Tannebring '73
Richard Newman Terry, Jr. '71
Robert Nelson Turner, Jr. '71
Luiz Fernando Valente '71
Karl George Wassmann III '73
William Thompson Webster, Jr. '72
David Ferris White '73
Clifford Herman Wieck '72
Lawrence Charles Wolfe '73
Alfred Carter Wright, Jr. '73
Richard Warwick Zeamer '72

Alumni Organizations

THE ALUMNI COUNCIL AND THE ALUMNI FUND

Officers of the Alumni Council

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Albert E. Gibbons, Jr. '58

Vice President
Malcolm E. Morrell, Jr. '49

Secretary and Treasurer
Louis B. Briasco '69

Members-at-Large

Term expires in 1972
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Campbell Cary '46
Paul P. Brountas '54
Albert E. Gibbons, Jr. '58

Term expires in 1973
Gordon C. Knight '32
Geoffrey R. Stanwood '38
Malcolm E. Morrell, Jr. '49
Howard H. Dana, Jr. '62

Term expires in 1974
Paul E. Gardent, Jr. '39
Wilfred T. Small '43
L. Robert Porteous, Jr. '46
Raymond A. Brearey '58

Term expires in 1975
John Shoukimas '38
Edward J. Goon '49
Alden H. Sawyer, Jr. '53
Robert C. Delaney '55

Directors of the Alumni Fund

James M. Fawcett III '58, *Chairman*
Raynham T. Bates '23, *Vice Chairman*
Robert M. Cross '45, *Secretary*

Term expires in 1972
James M. Fawcett III '58

Term expires in 1973
Raynham T. Bates '23

Term expires in 1974
Jonathan S. Green '60

Term expires in 1975
Herbert S. French, Jr. '46

Term expires in 1976
Robert R. Neilson '42

Faculty Member
John L. Howland '57

Secretary of the Alumni Fund
Robert M. Cross '45

Alumni Secretary
Louis B. Briasco '69

Editor of the Bowdoin Alumnus
David F. Huntington '67

Other Council Members are the representatives of recognized local Alumni Clubs and three members of the undergraduate body.

The officers of the Alumni Council are ex officio the officers of the Bowdoin College Alumni Association. The Council Members-at-Large, the Directors of the Alumni Fund, the Faculty Member, the Treasurer, the Secretary of the Alumni Fund, and the Alumni Secretary serve as the Executive Committee of the Council and of the Association.

ALUMNI CLUBS

ALBANY. *President and Council Member,* David B. Klingaman '62; *Secretary,* Lewis P. Welch '54, 46 Carstead Drive, Slingerlands, New York 12159

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Columbus. Currently without officers

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Southern Florida. *Convener,* David R. Manyan '58, 1126 Milan Avenue, Coral Gables, Florida 33134

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Texas. *Convener and Council Member,* Dr. Robert C. Young '51, 4005 St. Andrews Drive, Dallas, Texas 75205

Vermont. *Convener and Council Member,* Robert D. Peakes '36, Middlesex Star Route, Montpelier, Vermont 05602

Washington. *President,* Frank C. Mahncke '60; *Council Member,* W. Streeter Bass, Jr. '38; *Secretary,* Rev. Richard H. Downes

'60, St. Albans School, Mount Saint Alban, Washington, D.C. 20016

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WORCESTER. *President and Council Member,* William W. Mason '61; *Secretary,* Scott Sargent '55, 5 Adams Street, Westboro, Massachusetts 01581

YORK COUNTY. *President,* Raymond A. Brearey '58; *Council Member,* Lendall A. Smith '31; *Secretary,* Payson S. Perkins '57, 1 Penwood Drive, Kennebunk, Maine 04043

One of the principal sources of both endowment and income in recent years has been the alumni; and the Alumni Fund, inaugurated in 1869 and reorganized in 1919, has contributed $3,333,713 for the capital needs of the College and a further sum of $3,251,064 for current expenses, as of June 30, 1971.

THE ALUMNI SERVICE AWARD

First established in 1932 as the Alumni Achievement Award and changed in name to the alumni Service Award in 1953, this award is made annually to the man who, in the opinion of his fellow alumni, as expressed by the Alumni Council, best represents the alumnus whose services to Bowdoin most deserve recognition.

The recipients for the last ten years have been:

1962 William D. Ireland '16
1963 John C. Pickard '22
1964 Emerson W. Zeitler '20
1965 Earle S. Thompson '14
1966 Glenn R. McIntire '25
1967 Willard B. Arnold III '51
1968 Philip S. Wilder '23 and Donovan D. Lancaster '27
1969 Sanford B. Cousins '20
1970 Louis Bernstein '22
1971 John L. Baxter '16

ALUMNI AWARD FOR FACULTY AND STAFF

The Alumni Award for Faculty and Staff was established by the Alumni Council in 1963 and is awarded each year "for service and devotion to Bowdoin, recognizing that the College in a larger

sense includes both students and alumni." The award is presented at the annual Alumni Day Luncheon in the fall and consists of a unique Bowdoin clock and a framed citation.

Recipients have been:

1963 Athern P. Daggett '25
1964 Hubert S. Shaw '36
1965 Nathaniel C. Kendrick H'66
1966 Manton Copeland
1967 Samuel E. Kamerling
1968 Herbert R. Brown H'63
1969 Albert Abrahamson '26
1970 Nathan Dane II '37
1971 Daniel F. Hanley '39

DISTINGUISHED BOWDOIN EDUCATOR AWARD

The Distinguished Bowdoin Educator Award was established by the Alumni Council in 1964 to recognize "outstanding achievement" in education by a Bowdoin alumnus in any field and at any level of education—except alumni who are members of the Faculty and Staff. The award is presented at the annual campus meeting of the Bowdoin Teachers' Club in April and consists of a framed citation and five hundred dollars.

Recipients have been:

1965 Wilbert Snow '07
1966 Frank E. MacDonald '23
1967 George T. Davidson, Jr. '38
1968 Jeffrey J. Carre '40
1969 Herbert B. Moore '48
1970 John S. Holden '35
1971 David W. D. Dickson '41

ALUMNI RECORD

The College wishes to have the most complete record possible of the addresses, occupations, and public services of its alumni. It solicits information in regard to these points as well as to matters appropriate to the *Bowdoin Alumnus,* an alumni magazine published at the College.

Communications should be addressed to the Alumni Secretary, Bowdoin College, Brunswick, Maine 04011. Alumni are particularly urged to keep the Alumni Secretary informed of any changes of address.

THE SOCIETY OF BOWDOIN WOMEN

The Society of Bowdoin Women was formed in 1922. Its purpose is to provide "an organization in which women with a common bond of Bowdoin loyalty may, by becoming better acquainted with the College and with each other, work together to serve the College in every possible way."

The society has made specific gifts to the College, such as silver and china for the president's house. In 1961 it established the Edith Lansing Koon Sills Lecture Fund, honoring Mrs. Kenneth C. M. Sills, wife of a former president of the College, and in 1971, following the decision to admit women undergraduates, the society created a scholarship fund restricted to qualified women students. The society also sponsors a luncheon at Commencement for all women on the campus.

Membership is open to any interested woman by the payment of annual dues of $2.00. There are nearly one thousand members in the society, and it is their enthusiasm, together with their dues and contributions, which makes possible the society's program.

Officers for 1971-1972

Honorary President, Mrs. Roger Howell, Jr.
President, Mrs. Vincent B. Welch
Vice President, Mrs. Leonard C. Mulligan
Secretary, Mrs. Richard A. Morrell
Treasurer, Mrs. Douglas L. Morton
Assistant Treasurer, Mrs. Alden H. Sawyer, Jr.

BOWDOIN FATHERS ASSOCIATION

Organized in 1946, the Bowdoin Fathers Association has as its purpose "to contribute to the development and perpetuation of the spirit which has made Bowdoin the college that it is."

Since 1950 the Association has given a prematriculation scholarship, usually equal to tuition, to be awarded to a deserving candidate from outside New England. In 1962 the Association established an annual grant to be awarded under the direction of the president of the College to undergraduates or graduates to enable the recipients to participate in summer research or advanced study directed towards their major field or life work.

An annual meeting is held in October in conjunction with Parents' Weekend, which owes its success largely to the efforts of the Bowdoin Fathers Association. All fathers of Bowdoin under-

graduates are eligible for membership in the Association. Annual dues are $10.00, and each father residing outside the continental United States or Canada is automatically an honorary member of the Association without payment of dues during the period his son is attending the College.

OFFICERS FOR 1970-1971

President, Stewart F. Oakes
1st Vice President, Nathaniel Fensterstock
2nd Vice President, Josiah A. Spaulding
Secretary, Robert P. Lampert
Treasurer, Herbert E. Mehlhorn

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